



## ■ North America

Like the migrant in the photo, Carlos Hernandez works in the fields surrounding Mendota, the “Cantaloupe Capital of the World,” in California’s Central Valley. A 67-year-old father of three, Carlos has been here since fleeing El Salvador during a civil war. While tending the crops that feed North America, Carlos has endured drought, recession, unemployment, and hunger. Now he has a new worry as the U.S. government, alarmed by Latino gang activity, has been deporting people like Carlos who don’t have legal immigration status. “I’ve worked here for 40 years. My wife, kids, everybody is here. I don’t have anyone back in El Salvador.”

Downtown at Pupuseria Morenita, Mendota’s city manager is munching on Salvadoran pupusas and writing to his congressional representatives, describing what Mendota would face if everyone without citizenship were deported: “Economically it would be devastating. Culturally our diversity would be lost.” While his senator may be sympathetic, his representative, himself a child of immigrants, recently voted to deport more illegal immigrants.

Now a new storm looms for Carlos: mechanization. Farmers throughout California are turning to machines to harvest crops as labor becomes more scarce and expensive. Mechanization places over half of Mendota’s agricultural jobs at risk. The remaining jobs will pay better and be easier since instead of stooping to pick cantaloupes in the hot sun, workers will sort them while riding on a harvester under a shade cloth. Having been in Mendota so long, Carlos thinks he can get one of these jobs, but there’s a catch. Better paying, easier jobs will be more attractive to U.S. citizens.

### Learning Objectives

#### Environment: Physical and Human

- 2.1** Describe how landforms influence the movement of air masses in North America, shaping the region’s climate.
- 2.2** Explain how North America’s massive consumption of resources impacts environments within the region and globally.
- 2.3** Identify historical patterns of subregional interaction within North America, and explain how they relate to current trends in economic development.

#### Globalization and Development

- 2.4** Describe North America’s position in the global economy and how globalization has transformed the region.

#### Power and Politics

- 2.5** Identify the major similarities and differences between Canada and the United States in the roles each country’s government plays domestically and internationally.

#### Urbanization

- 2.6** Explain how North America’s urban areas have changed since World War II, and the factors that have driven these changes.

#### Population, Gender, and Culture

- 2.7** Identify how the changing role of women in society has contributed to the aging of North American populations.
- 2.8** Describe how North America’s population distribution is changing.
- 2.9** Explain how the increase in migration from Middle and South America and parts of Asia is changing the culture and politics of North America.

#### Subregions of North America

- 2.10** Identify key characteristics of the subregions of North America.





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**Figure 2.2** Political map of North America.

## ENVIRONMENT: PHYSICAL AND HUMAN

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- 2.3** Identify historical patterns of subregional interaction within North America, and explain how they relate to current trends in economic development.

The continent of North America has almost every type of climate and a wide variety of landforms (Figure 2.1). Huge expanses of mountain peaks, ridges, and valleys meet expansive plains, long, winding rivers, myriad lakes, and extraordinarily lengthy coastlines. Here we focus on a few of the most significant landforms, the major climates, the many environmental consequences of the North American lifestyle, and the history of human settlement in the region.

### LANDFORMS

A wide mass of mountains and basins, known as the Rocky Mountain zone, dominates western North America (Figure 2.3). It stretches down from the Bering Strait in the far north, through Alaska, and into Mexico. This zone formed about 200 million years ago when, as part of the breakup of the supercontinent Pangaea (see Figure 1.6), the Pacific Plate pushed against the North American Plate, thrusting up mountains. These plates still rub against each other, causing earthquakes along the Pacific coast of North America.



**Figure 2.3** The Rockies in Banff Springs, Alberta, Canada. [George Rose/Getty Images]



**Figure 2.4** The Appalachian Mountains in Virginia. [KAREN BLEIER/Getty Images]

The much older and hence more eroded Appalachian Mountains stretch along the eastern edge of North America from New Brunswick and Maine to Georgia (Figure 2.4). This range resulted from very ancient collisions between the North American Plate and the African Plate.

Between these two mountain ranges lies the huge central lowland of undulating plains that stretches from the Arctic to the Gulf of Mexico. This landform was created by the deposition of deep layers of material eroded from the mountains and carried to this central North American region by wind and rain and by the rivers flowing east and west into what is now the Mississippi drainage basin.

During periodic ice ages over the last 2 million years, glaciers have covered the northern portion of North America. In the most recent ice age (between 10,000 and 25,000 years ago), the glaciers, sometimes as much as 2 miles (about 3 kilometers) thick, moved south from the Arctic, picking up rocks and soil and scouring depressions in the land surface. When the glaciers later melted, these depressions filled with water, forming the Great Lakes. Thousands of smaller lakes, ponds, and wetlands that stretch from





Stories like that of Carlos Hernandez and places like Mendota are not what people usually expect when they think about North America, a vast region renowned for its wealth, innovation, and economic opportunities (Figure 2.1). These stories reflect the experiences of many in this region where people and communities are struggling to adapt to economic and political changes driven by globalization. The United States has been the world's largest economy for 130 years and its strongest military power for more than half a century. But after decades of high-paying jobs being moved overseas or replaced by technology, of wealth becoming more concentrated in the hands of the upper middle class and the rich, and of multiple financial crises, the U.S. economy has lost much of its momentum. By some measures, the United States is now no longer the world's largest economy; in 2014, China's economy outgrew that of the United States in terms of its purchasing power. China will surpass the United States in all measures of economic size within the next decade. In the midst of these shifts, there is renewed interest in helping poor people navigate difficult economic times. For example, health care for low-income people received major government investment in the United States with the passage of the Affordable Care Act in 2010. These trends exist to a lesser extent in Canada, due largely to more stable and substantial support for government programs that help poor people.

What Makes North America a Region?

In this book we define North America as Canada and the United States, two countries that are linked because of their geographic proximity, similar history, and many common cultural, economic, and political features (Figure 2.2). This is a cultural definition of the region, not a physical or political one. Mexico and much of Central America are physically part of the continent of North America, but culturally they are more connected to Middle and South America. For similar reasons, Hawaii is part of Oceania, and Puerto Rico part of Middle and South America, even though both are politically part of the United States.

Terms in This Chapter

The term *North America* is used to refer to both countries. Even though it is common on both sides of the border to call the people of Canada “Canadians” and people in the United States “Americans,” this text uses the terms *United States* or *U.S.*, rather than *America*, for the United States. Other terms relate to the cultural diversity of the region. The text uses the term **Latino** to refer to all Spanish-speaking people from Middle and South America, although their ancestors may have been European, African, Asian, or Native American. Native American people have different terms they prefer: some in the United States still favor *American Indian* while in Canada *Aboriginal peoples* is an umbrella term covering people who identify as *First Nations*, *Nunavut*, and *Métis* (people of mixed Native American and European ancestry). In this text we will most often use *Native American* for those in the United States and *Aboriginal peoples* for those in Canada.

**Latino** a term used to refer to all Spanish-speaking people from Middle and South America, although their ancestors may have been European, African, Asian, or Native American

Figure 2.1 Physical features of North America.

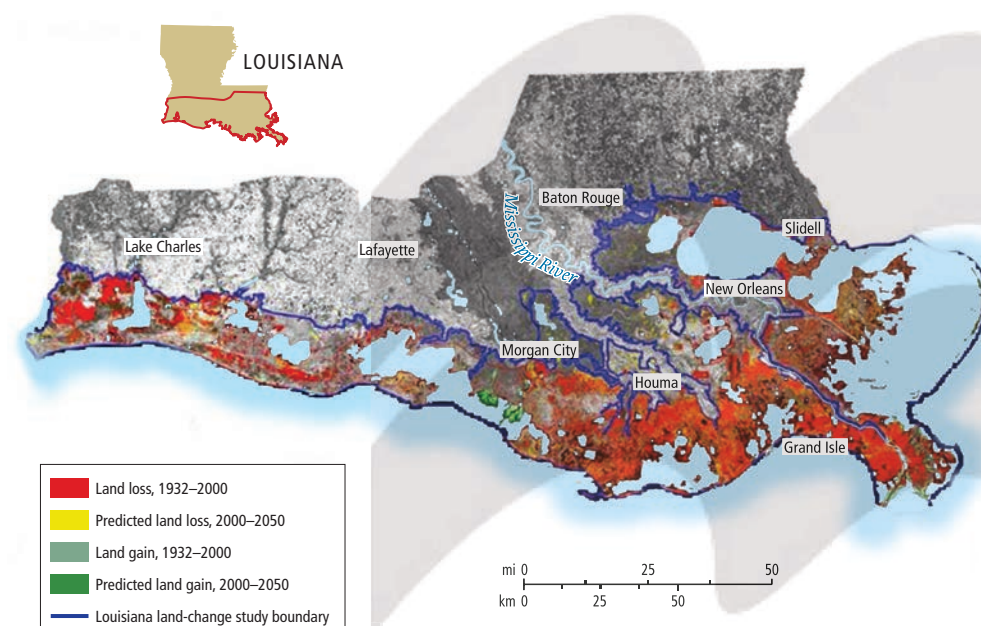




**Figure 2.5** Central lowlands near Grand Marais, Minnesota.  
[Jeffrey Phelps/Getty Images]



**Figure 2.6** Coastal lowlands near Larose, Louisiana. [Alex Ogle/AFP/Getty Images]



**Figure 2.7** Wetland loss in Louisiana's Mississippi River Delta. The Louisiana coastline and the lower Mississippi River basin are the end point for the vast Mississippi drainage basin and provide coastal wildlife habitats, recreational opportunities, and transportation lanes that connect the vast interior of the country to the ocean and to offshore oil and gas. Most importantly, the wetlands provide a buffer against damage from hurricanes. Unfortunately, Louisiana has lost one-quarter of its total wetlands over the last century, largely because of human activity. The remaining 3.67 million acres constitute 14 percent of the total wetland area in the lower 48 states. [Research from: USGS/National Wetlands Research Center]

Minnesota and Manitoba to the Atlantic were formed in the same way (**Figure 2.5**). Melting glaciers also dumped huge quantities of soil throughout the central United States. This soil, often many meters deep, provides the basis for large-scale agriculture but remains susceptible to wind and water erosion.

East of the Appalachians, the Atlantic coastal lowland stretches from New Brunswick to Florida. It then sweeps west to the southern reaches of the central lowland along the Gulf of Mexico (**Figure 2.6**). In Louisiana and Mississippi, much of this lowland is filled in by the Mississippi River delta—a low, flat, swampy transition zone between land and sea (**Figure 2.7**). The delta was formed by massive loads of silt deposited during floods over the past 150-plus million years by the Mississippi, North America's largest river system. The delta deposit originally began at what is now the junction of the Mississippi and Ohio rivers at Cairo, Illinois; slowly, as ever more sediment was deposited, the delta advanced 1000 miles (1600 kilometers) into the Gulf of Mexico.

Over the centuries, human activities such as deforestation, deep plowing, and heavy grazing have led to erosion and added to the silt load of the rivers. The construction of levees during the last 300 years along riverbanks has drastically reduced flooding. Because of this flood control, much of the silt that used to be spread widely across the lowlands during floods is being carried to the southern part of the Mississippi delta—a low, flat zone characterized by swamps, lagoons, and sandbars. Some of these wetland areas are getting overloaded with silt, the weight of which is causing parts of the delta to sink into the Gulf of Mexico, a process called *subsidence*.

## CLIMATE

The landforms across this continental expanse influence the movement and interaction of air masses and contribute to its enormous climate variety (**Figure 2.8**). Along the southern west coast of



## 2.8 Climates of North America



**A Arctic, Alaska** [Lowell Georgia/National Geographic/Getty Images]



**B** Temperate midlatitude, Maryland [Linda Davidson/The Washington Post via Getty Images]



**C** Desert, Utah [DEA/F. Barbagallo/De Agostini/Getty Images]



North America, the climate is generally mild (Mediterranean)—dry and warm in summer, cool and moist in winter. North of San Francisco, the coast receives moderate to heavy rainfall. East of the Pacific coastal mountains, climates are much drier because as the moist air sinks into the warmer interior lowlands, it tends to hold its moisture. This interior region becomes increasingly arid moving eastward across the Great Basin (see Figure 2.8C) and Rocky Mountains. Many dams and reservoirs for irrigation projects have been built to make agriculture possible. Because of the low level of rainfall, however, the amount of water that is being extracted exceeds the capacity of ancient underground water basins (**aquifers**) to replenish themselves.

On the eastern side of the Rocky Mountains, the main source of moisture is the Gulf of Mexico. When the continent is warming in the spring and summer, the air masses above it rise, sucking in warm, moist, buoyant air from the Gulf. This air interacts with cooler, drier, heavier air masses moving into the central lowland from the north and west, often creating violent thunderstorms and tornadoes (see Figure 2.8A). Generally, central North America is wettest in the eastern and southern parts and driest in the west and north (see Figure 2.8B). Along the Atlantic coast, moisture is supplied by warm, wet air above the Gulf Stream—a warm ocean current that flows north from the eastern Caribbean and Florida and follows the coastline of the eastern United States and Canada before crossing the North Atlantic Ocean.

The large size of the North American continent creates wide temperature variations. Because land heats up and cools off more rapidly than water, temperatures in the interior of the continent are hotter in the summer and colder in the winter than in coastal areas, where temperatures are moderated by the oceans.

**aquifers** ancient natural underground reservoirs of water

### CHECK YOUR UNDERSTANDING

1. What are North America's two main mountain ranges? Where are they located?
2. How do the major landforms of this region influence the movement of air masses to contribute to its climatic variety?

### ENVIRONMENT

North America's wide range of resources and its seemingly limitless stretches of forest and grasslands sometimes divert attention from the environmental impacts of its settlement and development. By global standards, most North Americans are relatively wealthy and can access vast resources both from within the region and globally. The United States in particular uses its status as the world's second-largest national economy, and the largest global military power, to protect and extend the access of its major corporations to resources throughout the world. The North American tendency toward intensive resource consumption has many environmental consequences. This section focuses on a few of those consequences: climate change and air pollution, depletion and pollution of water resources and fisheries, and habitat loss.

### Climate Change and Air Pollution

On a per capita basis, North Americans contribute among the largest amounts of greenhouse gases (GHGs) to Earth's atmosphere. Home to just under 5 percent of the world's population, the region produces 16 percent of humanity's GHG emissions. No other region has higher per capita emissions. This is largely a result of North America's high consumption of fossil fuels, which is related to several factors. One of these is North America's dominant pattern of urbanization, characterized by vast and still-growing suburbs where automobiles are the main mode of transportation. The mostly single-story freestanding buildings across the region's urban landscapes require more energy to heat and cool than do the densely packed, high-rise buildings typical of cities in other world regions. North American industrial and agricultural production also depends very heavily on fossil fuels.

Canada's government was one of the first to commit to international agreements aimed at reducing the consumption of fossil fuels. The U.S. government has wavered, at times supporting such agreements and enacting policies to reduce its high GHG emissions, only to reverse course later, fearing damage to its economy. Because the United States wields so much power on the global stage both economically and politically, its unsteady support for international agreements to reduce GHG emissions has made it harder for other countries to commit wholeheartedly to GHG reductions.

GHG emissions have been falling in both the United States and Canada since 2008 due to the economic recession, though increased energy conservation has played a role in recent years. Many utility companies are also switching from coal to natural gas, which is cheaper and produces less CO<sub>2</sub> when burned.

Both Canada and the United States have long explored alternative sources of energy, such as geothermal, nuclear power, wind, and solar. Solar has grown at exponential rates in recent years, and the United States now has the fourth-largest installed solar power-generating capacity in the world, after China, Japan, and Germany. The United States has the world's second-largest wind power-generating capacity, and wind has several times more installed generating capacity than solar. Moreover, the U.S. solar and wind power industries now employ more people than the coal industry, even though the latter still supplies around a quarter of all electric power. This could give solar and wind increased political leverage, especially as these industries continue to grow rapidly in coming years. While Canada has much less solar- or wind-generating capacity, almost 64 percent of its energy comes from renewable resources, mostly hydroelectric power. Renewable energy accounts for around 11 percent of U.S. energy consumption.

**Vulnerability to Climate Change** Both Canada and the United States are vulnerable to the effects of climate change. Dense population centers on the Gulf of Mexico and on the Atlantic coast are very exposed to hurricanes, which may become more violent as oceans warm (**Figure 2.9B, C**). Sea level rise and coastal erosion, caused by the thermal expansion of the oceans, are already affecting Arctic coastal areas (see Figure 2.9A). Here, at least 26 coastal communities are being forced to relocate inland, at an estimated cost of U.S.\$130 million per village.

## PHOTO ESSAY

### 2.9 Vulnerability to Climate Change in North America

North America's wealth and its well-developed emergency response systems make it very resilient and reduce its overall vulnerability to climate change. Nevertheless, climate-change impacts are already forcing some people to move, especially those exposed to hurricanes and sea level rise. Currently, more than 90 U.S. coastal communities are experiencing chronic flooding, and in 20 years that number will double.

#### THINKING GEOGRAPHICALLY

- A** Describe the coastal erosion illustrated by this photo.
- B** Why are stronger hurricanes more likely as the climate warms?
- C** What elements of this community's emergency response system may be compromised by this flooding?



**A** The location of Shishmaref, Alaska, on the Arctic Sea leaves it exposed to coastal erosion, which may be increasing in the area because of warmer air and sea temperatures. [GABRIEL BOUYS/AFP/Getty Images]



**B** Hurricanes gain strength with warmer temperatures. Many low-lying coastal cities are very exposed and sensitive to hurricanes, though their resilience varies. Shown here is a fire that destroyed several homes in New Orleans when the flooding caused by Hurricane Katrina made it impossible for fire trucks to reach the fire. [Craig Warga/NY Daily News Archive via Getty Images]



**C** Florida's low elevations expose it to sea level rise and flooding during and after hurricanes. [Josh Ritchie/Getty Images]



► This map shows patterns of vulnerability to climate change, based on a combination of human and environmental factors. Areas in darker red are the most vulnerable to hazards related to climate change.

The stark contrast in vulnerability along the U.S.–Mexico border reflects different sensitivity and resilience to water scarcity. The U.S. side has a much better water infrastructure, reducing its sensitivity to drought, and its emergency response systems make it more resilient to water shortages than Mexico.



Regardless of how much humans decrease their GHG output, climate-change impacts will force some people to move. Currently more than 90 U.S. coastal communities are experiencing chronic flooding that is forcing some people to move, and in 20 years that number will double. By the end of the century 670 coastal towns and cities in North America will be battling chronic flooding related to sea level rise. Another major area of vulnerability is arid farming zones, where higher temperatures are reducing soil moisture, making irrigation crucial.

In all of these areas, resilience to climate change is bolstered over the short term by the region's relatively strong emergency response and recovery systems. Long-term resilience is boosted by careful planning as well as by North America's large and diverse economy, which can provide alternative livelihoods to people who face significant exposure to climate impacts.

**Air Pollution** In addition to climate change, most GHGs contribute to various forms of air pollution, such as smog and acid rain. **Smog** is a combination of industrial emissions, car exhaust, and water vapor that frequently hovers as a yellow-brown haze

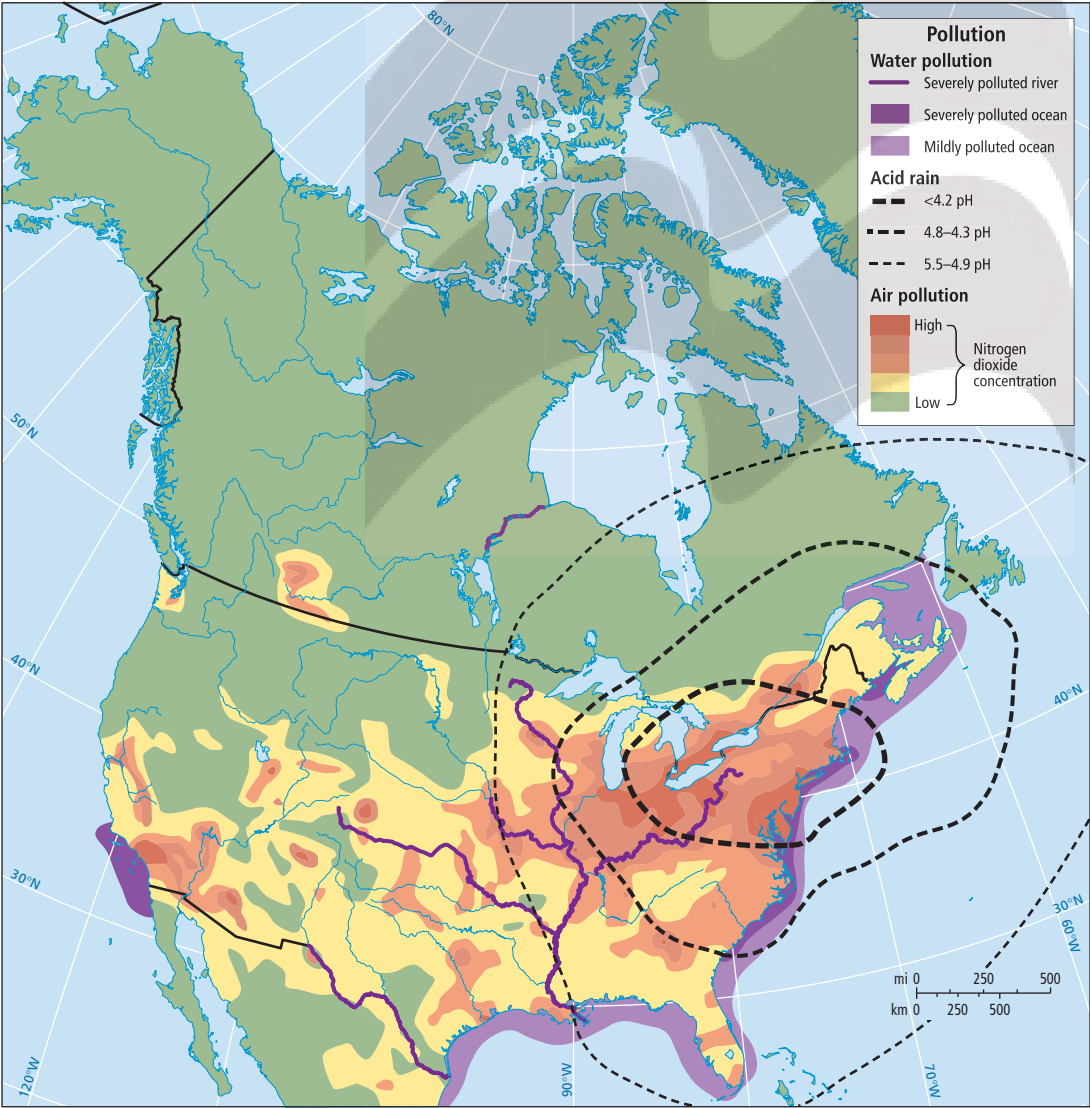
over cities, including many in North America, and causes a variety of health problems. These same emissions also result in **acid rain**, which is created when pollutants dissolve in precipitation and make the rain acidic. Acid rain can kill trees and, when concentrated in lakes and streams, poison fish and wildlife.

The United States, with its large population and extensive range of industries, is responsible for the vast majority of acid rain in North America. Because of continental weather and wind patterns, however, the area most affected by acid rain encompasses a wide swath on both sides of the eastern U.S.–Canada border (Figure 2.10). The eastern half of the continent, which includes the entire Eastern Seaboard from the Gulf Coast to Newfoundland, also is significantly impacted by acid rain.

Solutions to North America's air pollution problems are based

**smog** a combination of industrial emissions, car exhaust, and water vapor that frequently hovers as a yellow-brown haze over many cities, causing a variety of health problems

**acid rain** precipitation that has formed through the interaction of rainwater or moisture in the air with sulfur dioxide and nitrogen oxides emitted during the burning of fossil fuels, making it acidic



**Figure 2.10** Air and water pollution in North America. This map shows two aspects of air pollution, as well as polluted rivers and coastal areas. Red and yellow indicate concentrations of nitrogen dioxide (NO<sub>2</sub>), a toxic gas that comes primarily from the combustion of fossil fuels by motor vehicles and power plants. This gas interacts with rain to produce nitric acid, a major component of acid rain, as well as toxic organic nitrates that contribute to urban smog. The map also shows polluted coastlines (including all of the coastline from Texas to New Brunswick) as well as severely polluted rivers, which include much of the Mississippi River and its tributaries.

on greater use of clean renewable resources and moving away from fossil fuels. Electric vehicles are an important way to reduce emissions. Studies show that even when the electricity used by electric vehicles is generated with coal, the most polluting fossil fuel, these vehicles still pollute significantly less than those powered by gas or diesel. Currently, electric vehicles are used in parts of North America that rely more on renewables and cleaner fossil fuels, such as natural gas, and hence in these regions the average electric vehicle emits roughly two to three times less than the average conventional vehicle over its entire life cycle.

### Water Resources

Water generally becomes more precious the farther west one goes in North America. As populations and per capita water usage grow, conflicts over water are becoming more and more common, especially in the west. People who live in the humid eastern areas often find it difficult to believe that water is becoming scarce, but even there water conflicts are increasing.

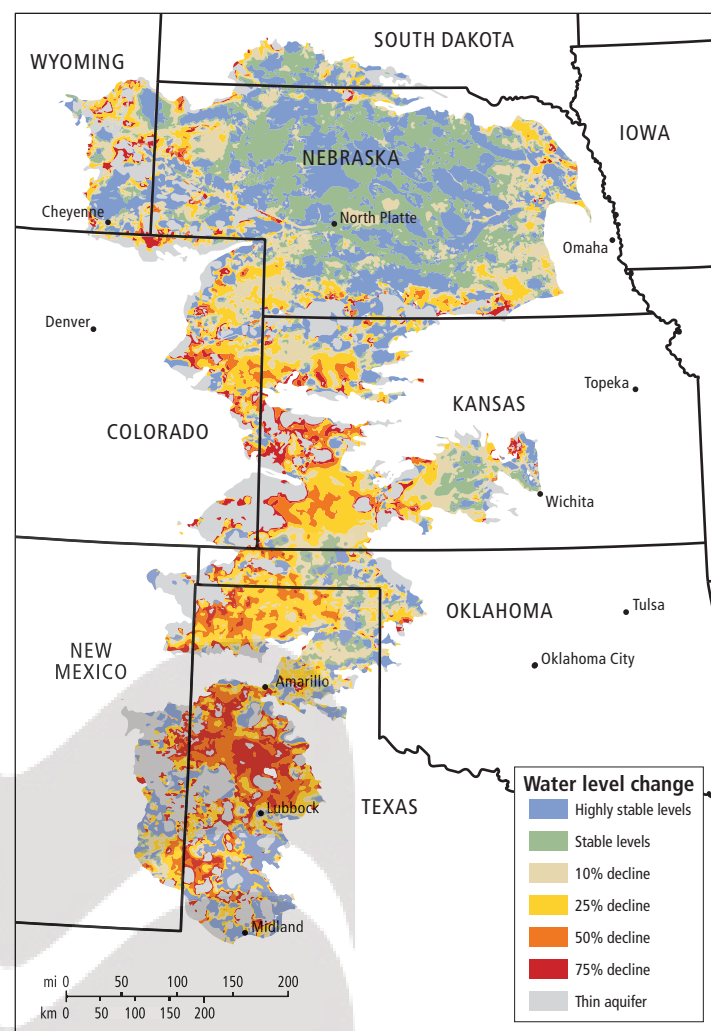
**Water Depletion** On the North American Great Plains, rainfall varies considerably from year to year. To make farming more secure and predictable, taxpayers across the continent have subsidized the building of pumps, aqueducts, and reservoirs for crop irrigation. However, more and more water for irrigation is being drawn from fossil water that has been stored over the millennia in aquifers. The *Ogallala aquifer* (Figure 2.11) underlying the Great Plains is the largest in North America. In parts of the Ogallala, water is being pumped out at rates that exceed natural replenishment by 10 to 40 times, threatening the entire agricultural system in these areas.

Southern California's fruit- and vegetable-growing areas and its major cities depend on water brought in from northern California and surrounding states. The state has some of the most expensive and massive water-engineering projects in the world, with water pumped from hundreds of miles away and over mountain ranges, using more energy than some states use for all purposes.

California and six other southwestern states use almost all of the water in the Colorado River, which deprives Mexico of this much-needed resource. The mouth of the Colorado (which is in Mexico) was once navigable but is now often dry and sandy, with only a trickle of water getting to Mexico.

Even in the eastern United States water scarcity is becoming an issue in some places. A "water war" among the states of Georgia, Florida, and Alabama has cost hundreds of millions of dollars in legal and court fees since the 1990s. Rapid growth in the city of Atlanta and in Georgia's irrigated agricultural areas is taxing water resources within two river basins that stretch into Alabama and Florida. Urban and agricultural growth in Alabama and a multi-million-dollar shellfish industry in coastal Florida are both threatened by Georgia's seemingly endless water demand. In 2013, the water dispute spread to neighboring Tennessee, when the Georgia legislature voted to redraw the boundary between Georgia and Tennessee, correcting an "error" in an 1818 survey, in order to gain access to the waters of the Tennessee River. Tennessee has so far refused to hand over any land to Georgia, so Atlanta is now adopting stricter regulations on urban water use.

Advances in irrigation could provide some solutions to water depletion in North America, because in most water-stressed parts



**Figure 2.11 The Ogallala aquifer.** Since the Ogallala aquifer was first developed in the 1950s, it has lost an average of 15 feet (5 meters) of water overall, and more than 234 feet (71 meters) of water in some parts of Texas. In the Ogallala area, the climate fluctuates from moderately moist to very dry, and the dry periods are lengthening. A drought began in mid-1992 and has returned every few years, causing large agribusiness firms to pump Ogallala water to supplement scarce precipitation. Since 1992, water levels in the aquifer declined an average of 1.35 feet per year and now exceed replenishment rates many times over. [Data from: <https://pubs.usgs.gov/sir/2017/5040/sir20175040.pdf>]

of the region more water goes to irrigated agriculture than to urban uses. Drip irrigation systems that efficiently deliver water to plants through drip hoses use a fraction of the water that conventional systems use and could free up enough water for urban water demand to grow for many years. Despite their expense and complexity, the use of drip irrigation has skyrocketed in California since the 1980s and now accounts for 39 percent of irrigated land in that state.

**Water Pollution** In the United States, 40 percent of rivers are too polluted for fishing and swimming, and more than 90 percent of the *riparian areas* (the interface between land and flowing surface water) have been degraded. Pollution in the rivers of North



America comes mainly as storm-water runoff from agricultural areas, urban and suburban developments, and industrial sites.

In the 1970s, scientists studying coastal areas began noticing *dead zones* where water is so polluted that it supports almost no life. Dead zones occur near the mouths of major river systems that have been polluted by fertilizers and pesticides washed from farms and lawns when it rains. A large dead zone is in the Gulf of Mexico near the mouth of the Mississippi, and similar zones have been found in all U.S. coastal areas. Even Canada, where much lower population density means that rivers are generally cleaner, has dead zones on its western coast.

A recently discovered type of water pollution involves pharmaceuticals, such as antibiotics, that are excreted by humans and are not removed during water purification processes. These chemicals then make their way into rivers and lakes, where they enter the food system in drinking water or through fish.

Solutions to water pollution in North America are many, but the highest priorities currently involve changes to agricultural systems and better management of storm-water runoff. The United States was one of the first countries to attempt to comprehensively address water pollution with the passage of the *Clean Water Act* (CWA) in the 1970s. The law aims to continually improve and maintain water quality throughout U.S. water bodies, and it has had dramatic impacts on urban and industrial areas, where pollution is occurring at much lower levels than before implementation of the CWA. While the CWA is a major success, and has been imitated in many other countries, it has always struggled to deal with agricultural sources of pollution, in part because they are much more widely dispersed “non-point” sources that are harder to monitor than urban and industrial “point sources” such as factories and wastewater treatment plants. Recent CWA water pollution control efforts focus on getting farmers to better manage the use of agricultural fertilizers, pesticides, and herbicides so that they are less likely to be washed into nearby water bodies during rain events.

### Loss of Natural Habitat and Urbanization

Before the European colonization of North America, which began soon after 1500, the environmental impact of humans in the region was relatively low. Major Native American impacts stemmed from the use of fire to clear forests for agriculture and to remove forest underbrush to improve hunting. These significant landscape changes pale in comparison to the environmental impact of Europeans who cleared millions of acres of forests and grasslands to make way for farms, cities, and industries. This was particularly true in the area that became the United States.

While agriculture is the primary driver of habitat loss in North America, invasive species are also a major concern. As North American native plants and animals have been forced into ever-smaller territories, many have died out entirely and been replaced by non-native species (European and African grasses and the domestic cat, for example) brought in by humans either purposely or inadvertently. Estimates vary, but at least 4000 nonnative species have invaded North America. An example is the Asian carp, which is rapidly invading rivers throughout the Mississippi drainage basin, and now threatens the Great Lakes (**Figure 2.12**).

Urbanization is another major cause of habitat loss, with **urban sprawl** (see the “Farmland and Urban Sprawl” section)



**Figure 2.12** Contestants in the annual Redneck Fishing Tournament on the Illinois River near Bath, Illinois. Asian carp are an invasive species imported by fish farmers in the southern United States in the 1970s to help clean their ponds. They escaped and now make up 90 percent of the biomass in the Illinois River near the town of Bath. The tournament takes advantage of the fact that when startled the fish tend to jump out of the water and can be caught in nets. Started as an attempt to eradicate the invasive fish, the festival has become a major celebration for the surrounding area. [Benjamin Lowy/Getty Images]

a concern in many communities. For several decades, middle- and upper-income urbanites throughout this region have wanted more spacious homes and yards, which has resulted in sprawling lower-density suburban neighborhoods that are car-dependent. Farms, forests, and other “undeveloped” land have given way to pavement, lawns, homes, shopping centers, office complexes, and golf courses. In the process, natural habitats are being degraded even more intensely than they were by farming.

### Oil Extraction

In many coastal and interior areas of North America, oil extraction is a large and potentially environmentally devastating industry. This often-overlooked problem was made clear in the spring and summer of 2010, when U.S. waters in the Gulf of Mexico became the site of the largest accidental marine oil spill in world history when the Deepwater Horizon, an offshore oil-drilling rig leased by British Petroleum (BP), leaked 200 million gallons of oil over a period of 4 months. Studies almost a decade later show oil from the spill still contaminating wildlife throughout the Gulf of Mexico, impacting fish, shellfish, and shrimp industries and marine ecosystems for decades to come.

In other places, too, oil extraction has a dramatic effect on the environment. Along the northern coast of Alaska, the Trans-Alaska Pipeline runs southward for 800 miles to the Port of Valdez (**Figure 2.13**). Often running above ground to avoid shifting as Earth freezes and thaws, the pipeline poses a constant risk of rupture, which could potentially result in devastating oil spills. The pipeline also interferes with migrations of caribou and other animals that Alaska’s indigenous people have depended on for food in the

**urban sprawl** the encroachment of suburbs on agricultural land





**Figure 2.13 The Trans-Alaska Pipeline.** The pipeline runs for 800 miles through remote areas where mining and oil industries can have a significant effect on the landscape. [Daniel Acker/Bloomberg via Getty Images]

past. Protests about the environmental impact of oil extraction in Alaska tend to be quieted by the yearly rebate of several thousand dollars from oil revenues received by each Alaskan.

With one-tenth the population of the United States, Canada has the largest proven oil reserves in the world after Saudi Arabia, sufficient to meet its needs plus provide export capacity. It is the largest foreign supplier of oil to the United States, but more than 90 percent of this oil is in hard-to-access oil sands in western Canada. The costs of extracting this oil are high in terms of environmental impacts, energy expended, and water resources used. Transport of the extracted oil across the North American continent through the Keystone Pipeline system (part of which is already in use) also poses environmental risks.

While Canada may have more proven oil reserves, the United States is now the largest producer of oil and gas, thanks largely to new drilling technologies known as **fracking** that use high-pressure injections of water to fracture rock formations, releasing natural gas and oil that the formations contain. First developed in the 1940s, fracking became widely used only in the past 10 years, after some important drilling innovations were made. Since then, large portions of the central United States have been opened up to fracking, especially in North Dakota, Texas, and Oklahoma.

While fracking has produced large amounts of fuel at a relatively low cost, it is controversial because of its environmental impacts, which include much higher GHG emissions than conventional drilling, significant local air pollution, water pollution, and earthquakes. In 2015, scientific studies concluded that a dramatic increase in earthquakes in Oklahoma, which had become a near-daily occurrence in some areas, was triggered by the practice of injecting wastewater produced during fracking into the ground. In 2016, Oklahoma started regulating the amount of wastewater

**fracking** a drilling technology that uses high-pressure injection of water to fracture rock formations, releasing natural gas and oil that they contain

**clear-cutting** a method of logging that involves cutting down all trees on a given plot of land regardless of age, health, or species

injected by fracking operations after a lawsuit was filed by environmental groups.

### Logging

Though widespread forest clearing for agriculture is now rare, logging is common throughout North America. It is especially important along the northern Pacific coast and in the southeastern United States. Logging in these areas provides most of the construction lumber and much of the paper used in Canada, the United States, and parts of Asia.

Although the logging industry provides jobs and an exportable commodity, it has been depleting the continent's forests. Environmentalists have focused on the damage created by the logging industry, especially via **clear-cutting**, the main logging method used throughout North America. In this method, all trees on a given plot of land are cut down, regardless of age, health, or species (Figure 2.14). Clear-cutting destroys wild animal and plant hab-

**Figure 2.14 Clear-cutting.**



**(A)** A logger just outside the Olympic National Park in Washington State makes the first cut in the process of felling an 800-year-old 120-foot cedar. Part of an irreplaceable old-growth forest, the tree is worth about U.S.\$10,000 at the sawmill. [James P. Blair/National Geographic/Getty Images]



**(B)** A clear-cut in Washington State's Olympic Peninsula, where more than 30 percent of the forests have been clear-cut since 1970. Logging in old-growth forests has been declining in recent years but still continues. [Wild Horizons/UiG via Getty Images]



itats, thereby reducing species diversity. It also leaves forest soils uncovered and very susceptible to erosion.

Concerns about the environmental impacts of logging are growing in the major logging states and provinces in part because of a shift away from employment in forestry and toward service sector and manufacturing jobs. For example, even in many remote areas of the Pacific Northwest where logging was once the backbone of the economy, residents now depend on tourism and other occupations that rely on the beauty of intact forest ecosystems.

### Coal Mining

Coal mining is a major industry, especially in Wyoming and parts of the Appalachian Mountains (from Pennsylvania through West Virginia and Kentucky), that is damaging to the environment. Strip mining, in which vast quantities of soil and rock are removed in order to extract underlying coal, can result in visual wastelands and in huge piles of mining waste called *tailings* that pollute waterways and threaten communities that depend on well water. Particularly damaging is a form of strip mining known as *mountaintop removal*, in which the whole top of a mountain is leveled and the tailings are pushed into surrounding valleys, resulting in the pollution of entire watersheds (Figure 2.15).

**Figure 2.15** Mountaintop removal coal mining.



**(A)** Kayford Mountain, West Virginia, has been the site of years of mountaintop removal coal mining. The top of the mountain has been extensively mined and the tailings pushed into the valley, shown in the foreground. [Rick Eglinton/Toronto Star via Getty Images]



**(B)** Polluted water seeps out of the Kayford Mountain mine site. [MANDEL NGAN/AFP/Getty Images]

Recent years have seen lower coal consumption in North America and in major coal export markets in Europe and China. This resulted from the cancellation of plans to build new coal-fired electrical power plants, and the closure of old plants and the mines that feed them as power generators shift over to natural gas and renewable energy.

### CHECK YOUR UNDERSTANDING

1. How does North America's massive consumption of resources impact environments within the region and globally?
2. How does North America compare to other regions in terms of its vulnerability to climate change?
3. What are some solutions to major environmental problems in North America, such as air pollution, water depletion, and water pollution?
4. What percentage of rivers in the United States are too polluted for fishing or swimming?
5. In what parts of North America is logging most common, and where is it in decline as a major employer?
6. How is coal mining influenced by changes in North America's overall energy economy?

### HUMAN PATTERNS OVER TIME

Perhaps more than any other, North America is a region of immigrants. In prehistoric times, humans came from Eurasia via Alaska, dispersing to the south and east. Beginning in the 1600s, waves of European immigrants and enslaved Africans spread over the continent, primarily from east to west. Today, immigrants are coming mostly from Asia and Middle and South America, arriving mainly in the Southwest and West, where immigrant populations are most concentrated. Migration within the region is still a defining characteristic of life for most North Americans, who are among the world's most mobile people, moving an average of 12 times in a lifetime.

#### The Peopling of North America

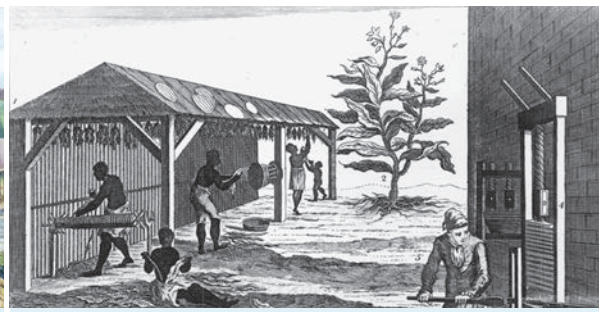
Recent evidence suggests that humans first came to North America from northeastern Asia at least 25,000 years ago and perhaps earlier, most arriving during an ice age. At that time, the global climate was cooler, polar ice caps were thicker, and sea levels were lower. The Bering land bridge, a huge, low landmass more than 1000 miles (1600 kilometers) wide, connected Siberia to Alaska. Bands of hunters crossed by foot or small boats into Alaska and traveled down the west coast of North America.

By 15,000 years ago, humans had reached nearly to the tip of South America and had moved deep into that continent. By 10,000 years ago, global temperatures began to rise. As the ice caps melted, sea levels rose and the Bering land bridge was submerged.

Over thousands of years, the people settling in the Americas domesticated plants, created paths and roads, cleared forests, built permanent shelters, and sometimes created elaborate social systems. About 3000 years ago, corn was introduced from Mexico (into what is now the southwestern U.S. desert), as were other Mexican domesticated crops, particularly squash and beans. Such



**A** Cahokia, Illinois, a community of 30,000 that lasted from 700 to 1400 C.E. [Cahokia Mounds State Historic Site, painting by Michael Hampshire]



**B** Enslaved people and workers in North America pick leaves and operate machines at a tobacco factory in 1750. [MPI/Getty Images]



**C** A log raft being floated down Oregon's Columbia River in 1902. [Library of Congress]



NOTE: Timeline range is not to scale

## Figure 2.16 VISUAL HISTORY OF NORTH AMERICA

### THINKING GEOGRAPHICALLY

**A** How did food crops such as corn, beans, and squash influence the development of settlements like Cahokia?

**B** Why did the plantation system inhibit the establishment of roads, communication networks, and small enterprises that could have boosted other forms of economic activity in the Southern colonies?

food crops are thought to have been closely linked to settled life and to North America's prehistoric population growth.

These foods provided surpluses that allowed some community members to engage in trade and specialized activities other than agriculture, hunting, and gathering, making possible large, city-like regional settlements. For example, by 1000 years ago, the urban settlement of Cahokia, including suburban settlements (in what is now central Illinois, across the Mississippi from St. Louis), covered 5 square miles (12 square kilometers) and was home to an estimated 30,000 people (Figure 2.16A). Here people specialized in crafts, trade, and other activities beyond the production of basic necessities.

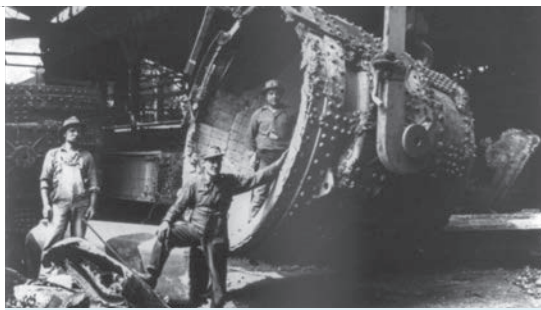
**The Arrival of the Europeans** North America was completely transformed by the sweeping occupation of the continent by Europeans. As early as 1497, English, Italian, and Portuguese sailors and fishermen were surveying the Eastern Seaboard of North America and establishing seasonal camps in places like St. John's, Newfoundland, in Canada. Over the next century English, French, and Spanish explorers attempted to establish colonies, of which the Spanish were the first to succeed. Within current U.S. territory, San Juan, Puerto Rico, was the first successful permanent settlement in 1521. A failed Spanish plantation settlement in coastal Georgia in 1526 introduced the first Africans to North America, some of whom escaped and joined indigenous groups in the sea islands of Georgia and South Carolina. In the 1540s, Spanish explorer Hernando de Soto made his way from Florida deep into the heartland of the continent, becoming the first European to cross the Mississippi River. The Spanish founded St. Augustine in Florida in 1565, and in 1598, Espanola, New Mexico, the first European town established west of the Mississippi. In the early seventeenth century, the British established colonies along the Atlantic

coast in what is now Virginia (1607) and Massachusetts (1620), and the Dutch founded New Amsterdam (now New York) in 1624 at the mouth of the Hudson River. The French explored the northern interior of the continent, founding Québec City (1608) at the mouth of the St. Lawrence River and Montréal further upstream. Assisted by enslaved Africans, colonists and settlers from northern Europe built villages, towns, port cities, and plantations along the eastern coast over the next two centuries. By the mid-1800s, they had occupied most lands of Native American and Aboriginal peoples into the central part of the continent.

**Disease, Technology, and Native Americans** The rapid expansion of European settlement was facilitated by the vulnerability of Native American and Aboriginal populations to European diseases. Having been isolated from the rest of the world for many years, Native American and Aboriginal populations had no immunity to diseases such as measles and smallpox. Transmitted by Europeans and Africans who had built up immunity to them, these diseases killed up to 90 percent of Native American and Aboriginal populations within the first 100 years of contact. It is now thought that diseases spread by early expeditions, such as de Soto's into Florida, Georgia, Tennessee, and Arkansas, so decimated populations in the North American interior that fields and villages were abandoned, the forest grew back, and later explorers erroneously assumed the land had never been occupied.

Technologically advanced European weapons, trained dogs, and horses also took a large toll on Native American and Aboriginal peoples, who often had only bows and arrows, clubs, and spears. Some Native Americans in the Southwest acquired horses and guns from the Spanish and learned to use them in warfare against the Europeans, but their other technologies could not compete. Numbers reveal the devastating effect of European settlement on Native





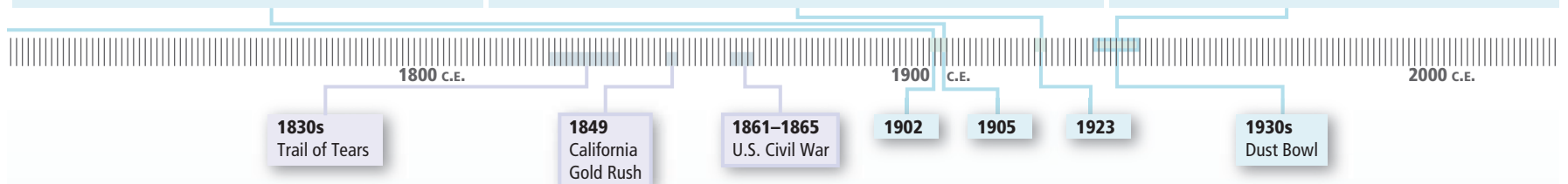
**D** Steel workers in Pittsburgh, Pennsylvania, in 1905. [Library of Congress]



**E** Oil wells encroach on agricultural land in Long Beach, California, in 1923. [Library of Congress]



**F** A farmer and his children walk through a dust storm in Oklahoma in 1936. [Library of Congress]



**C** What economic activities now dominate the coastal Pacific Northwest?

**D** How did the steel industry stimulate development in the “economic core” of North America?

**E** What activities have become economically important in California other than agriculture and the oil industry?

**F** What were the causes of the Dust Bowl?

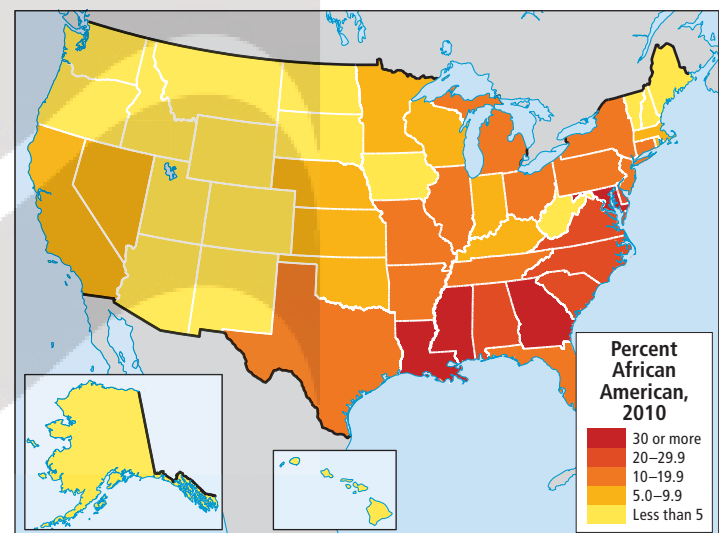
**American and Aboriginal populations:** There were roughly 18 million Native Americans and Aboriginal peoples in North America in 1492. By 1542, after just a few Spanish expeditions, there were only half that number. By 1907, slightly more than 400,000, or a mere 2 percent of the original population, remained.

### The European Transformation

European settlement erased many of the landscapes familiar to Native American and Aboriginal peoples and imposed new ones that fit the varied physical and cultural desires of the new occupants.

**The Southern Settlements** By the late 1600s, large plantations in the colonies of Virginia, the Carolinas, and Georgia were cultivating crops such as tobacco, rice, and cotton, which became valuable exports. During this time large numbers of enslaved Africans were brought into the region, becoming the dominant labor force on many plantations (see Figure 2.16B). By the start of the U.S. Civil War in 1861, enslaved people made up about one-third of the population in the Southern states and were often a majority in the plantation regions. Working and living conditions on these plantations were often brutal and hazardous, with execution, beatings, and rape being regular occurrences. Enslaved people were usually denied formal education, and gatherings of any kind were often banned in order to make slave rebellions more difficult to organize. Even so, there were more than 250 documented slave rebellions in North America. The largest concentrations of African Americans in North America are still in the southeastern states (Figure 2.17).

The plantation system consolidated wealth into the hands of a small class of landowners who made up just 12 percent of Southerners in 1860. These elite members of the planter class kept taxes low and



**Figure 2.17** Percent of African American population in each state. The percent refers only to those persons who selected “Black, African Am., Negro” as their only race in the 2010 census. It does not include those who selected more than one race that included black.

[Data from: <http://www.census.gov/quickfacts/map/RHI225214/00>]

invested money from their exported crops in Europe or the more prosperous Northern colonies instead of in **infrastructure** at home. As a result, the road, rail, and communication networks and other facilities necessary for further economic growth in the South were rarely built.

More than half of Southerners were poor white farmers.

**infrastructure** road, rail, and communication networks and other facilities necessary for economic activity

Both they and the enslaved African population lived simply, and their meager consumption did not provide much demand for goods. Because of this, there were few market towns and almost no industries. Plantations tended to import from Europe and the northern United States whatever they couldn't produce for themselves. The result was much slower economic growth in the South relative to areas in the North, where a more diverse range of agriculture and industries supported a larger service economy of small shops, garment making, restaurants and bars, and transportation services.

Along with the abolition movement to free enslaved Africans and their descendants, the inability of the federal government to reconcile the different needs of the agricultural export-oriented Southern economy and the industrializing Northern economy was one of the causes of the Civil War (1861–1865) in the United States. After the war, while the victorious North returned to promoting its own industrial development, the plantation economy declined, and the South sank deeply into poverty. The South remained economically and socially underdeveloped well into the 1970s, and even today it remains the poorest subregion of North America.

**The Northern Settlements** Throughout the seventeenth century, relatively poor subsistence farming communities dominated the colonies of New England and southeastern Canada. There were no plantations and few enslaved people, and most exports were raw materials such as timber, animal pelts, and fish from the Grand Banks off Newfoundland and the coast of Maine. Generally, farmers lived in interdependent communities that prized education, ingenuity, self-sufficiency, and thrift.

By the late 1600s, New England was implementing ideas and technology from Europe that led to the first industries. By the 1700s, diverse industries were supplying markets in North America and the Caribbean with metal products, pottery, glass, and textiles. By the early 1800s, southern New England, especially the region around Boston, had become the center of manufacturing in North America. It drew largely on young male and female immigrant labor from French Canada and Europe.

**The Mid-Atlantic Economic Core** The colonies of New York, New Jersey, Pennsylvania, and Maryland eventually surpassed New England and southeastern Canada in population and in wealth. This mid-Atlantic region benefited from more fertile soils, a slightly warmer climate, multiple deepwater harbors, and better access to the resources of the interior. By the end of the Revolutionary War in 1783, the mid-Atlantic region was on its way to becoming the **economic core**, or the dominant economic region, of North America. Port cities such as New York, Philadelphia, and Baltimore prospered as the intermediaries for trade between Europe and the vast American continental interior.

In the early nineteenth century, both agriculture and manufacturing grew and diversified, drawing immigrants from much of northwestern Europe. As farmers became more successful, they

**economic core** the dominant economic region within a larger region

bought more and more mechanized equipment, appliances, and consumer goods made in nearby cities. By the mid-nineteenth century, the economy of the core was increasingly based on the steel industry, which spread westward to Pittsburgh and the Great Lakes' industrial cities of Cleveland, Detroit, and Chicago. The steel industry relied on the mining of coal and iron ore deposits throughout the region and beyond. Steel became the basis for mechanization, and the region was soon producing heavy farm and railroad equipment (see Figure 2.16D).

By the early twentieth century, the economic core stretched from the Atlantic to St. Louis on the Mississippi (including many small industrial cities along the river, to Milwaukee), and from Ottawa to Washington, DC. It dominated North America economically and politically well into the middle of the twentieth century. Most other areas produced food and raw materials for the core's markets and depended on the core's factories for manufactured goods.

### Expansion West of the Mississippi and Great Lakes

The east-to-west trend of settlement continued as land in the densely settled eastern parts of the continent became too expensive for new immigrants. By the 1840s, immigrant farmers from central and northern Europe, as well as European descendants born in eastern North America, were pushing their way beyond the Great Lakes and across the Mississippi River, north and west into the Great Plains of Canada and the United States (Figure 2.18).

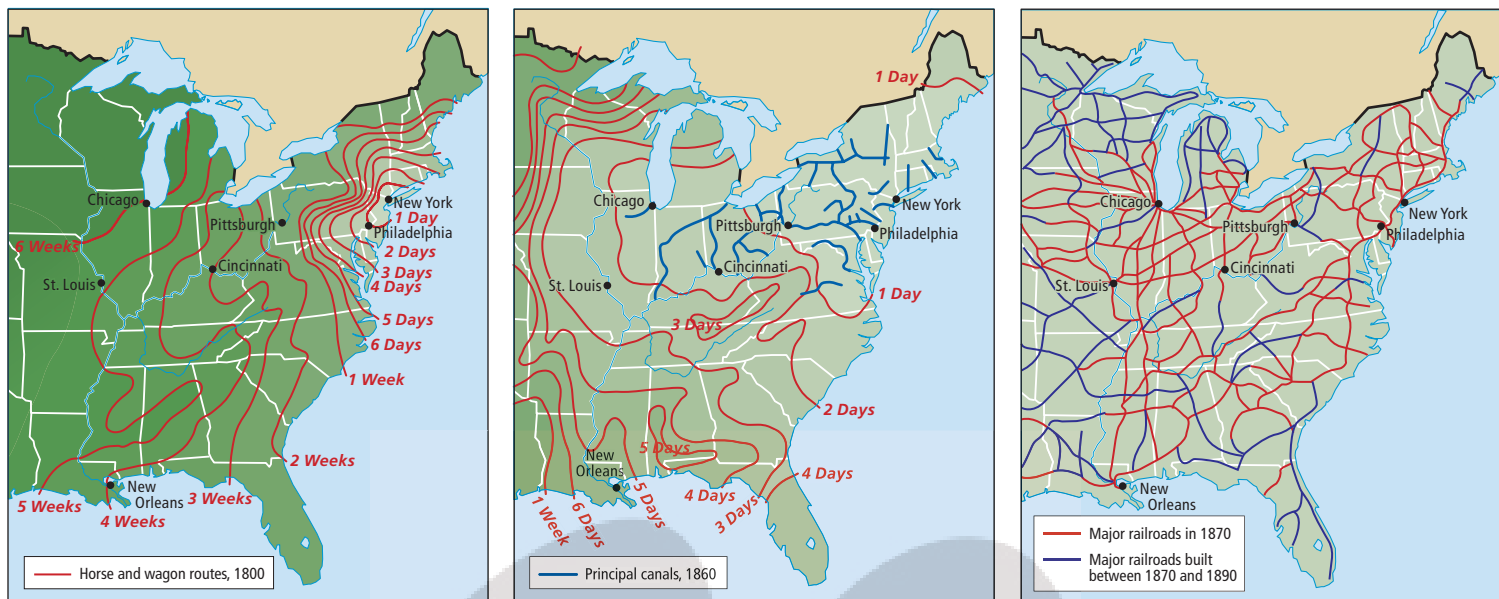
**The Great Plains** Much of the land west of the Great Lakes and the Mississippi River was dry grassland or prairie. The soil usually proved very productive in wet years, and the area became known as North America's *breadbasket*. But the naturally arid character of this land eventually created an ecological disaster for Great Plains farmers. In the 1930s, after 10 especially dry years, a series of devastating dust storms blew away topsoil by the ton. This hardship was made worse by the widespread economic depression of the 1930s. Many Great Plains farm families packed up what they could and left what became known as the Dust Bowl (see Figure 2.16F), heading west to California and other states on the Pacific Coast.

**The Mountain West and Pacific Coast** Some immigrants and settlers from east of the Mississippi, alerted to the possibilities farther west, skipped over the Great Plains entirely. By the 1840s, they were coming to the valleys of the Rocky Mountains, to the Great Basin, and to the well-watered and fertile coastal zones of what was then known as the Oregon Territory and California. In 1848, only 1 year after California was forcibly annexed from Mexico to the United States, news of the discovery of gold in California drew thousands of people with the prospect of getting rich quickly. The vast majority of gold seekers were unsuccessful, however, and by 1852 they had to look for employment elsewhere. Farther north, logging eventually became a major industry (see Figure 2.16C).

The extension of railroads across the continent in the nineteenth century facilitated the transportation of manufactured goods to the West as well as raw materials and eventually fresh



**Figure 2.18 Nineteenth-century transportation.** [Research from: James A. Henretta, W. Elliot Brownlee, David Brody, and Susan Ware, *America's History*, 2nd ed. (New York: Worth, 1993), pp. 400–401; James L. Roark, Michael P. Johnson, Patricia Cline Cohen, Sarah Stage, Alan Lawson, and Susan M. Hartmann, *The American Promise: A History of the United States*, 3rd ed. (Boston: Bedford/St. Martin's, 2005), p. 601]



**(A)** Travel times from New York City, 1800. It took a day to travel by wagon from New York City to Philadelphia and a week to go to Pittsburgh.

**(B)** Travel times from New York City, 1860. The travel time from New York to Philadelphia was now only 2 or 3 hours and to Pittsburgh less than a day because people could go part of the way via canals (dark blue). Using the canals, the Great Lakes, and rivers, they could easily reach principal cities along the Mississippi River, and travel was less expensive and onerous than it had been.

**(C)** Railroad expansion by 1890. With the building of railroads, which began in the decade before the Civil War, the mobility of people and goods increased dramatically. By 1890, railroads crossed the continent, though the network was densest in the eastern half.

produce to the East. Today, the coastal areas of this region, often called the Pacific Northwest, have thriving, diverse, high-tech economies and flourishing populations. Partially in response to the long history of resource extraction in the Pacific Northwest, residents are on the forefront of so many efforts to reduce human impacts on the environment that the region has been nicknamed “Ecotopia.”

**The Southwest** People from the Spanish colony of Mexico first colonized the Southwest in the late 1500s. Their settlements were sparse. As immigrants from the United States moved into the region, drawn by the cattle-raising industry, Mexico found it progressively more difficult to maintain control, and by 1850, nearly the entire Southwest was under U.S. control.

By the twentieth century, a vibrant agricultural economy had developed in central and southern California, supported by massive government-sponsored water-movement and irrigation projects. The mild Mediterranean climate made it possible to grow vegetables almost year-round. With the advent of refrigerated railroad cars, fresh California vegetables could be sent to the major population centers of the East. Southern California’s economy rapidly diversified to include oil (see Figure 2.16E), entertainment, and a variety of engineering- and technology-based industries.

### European Settlement and American Indians and Aboriginal Peoples

As settlement relentlessly expanded west, Native American and Aboriginal peoples who had survived early encounters with Europeans and were living in the eastern part of the continent occupied land that European newcomers wished to use. During the 1800s, almost all the surviving Native American and Aboriginal peoples were killed in innumerable skirmishes with European newcomers, were absorbed into the societies of the Europeans (through intermarriage and acculturation), or were forcibly relocated west to relatively small reservations with few resources. The largest relocation, in the 1830s, involved the Choctaw, Seminole, Creek, Chickasaw, and Cherokee of the southeastern states. These people had already adopted many European methods of farming, building, education, government, and religion. Nevertheless, they were rounded up by the U.S. Army and marched to Oklahoma along a route that became known as the Trail of Tears because of the more than 4000 Native Americans who died along the way.

As Europeans occupied the Great Plains and prairies, many of the reservations were further shrunk or relocated onto even less desirable land. Today, reservations cover just over 2 percent of the land area of the United States.

In Canada the picture is somewhat different. Reservations now cover 20 percent of Canada, mostly because of the creation of the

Nunavut Territory (now known simply as Nunavut) in 1999 in the far north and the ceding of Northwest Territory land to the Tłı̨chǫ Aboriginal people (formerly known as the Dogrib) in 2003 (see the Figure 2.1 map). These Canadian Aboriginal peoples stand out as having won the right to legal control of their lands. In contrast to the United States, it had been unusual for native groups in Canada to have legal control of their territories.

After centuries of mistreatment, many Native American and Aboriginal peoples still live in poverty and, as in all communities under severe stress, rates of alcohol and drug addiction and violence are high. Until the 1980s many children from Native American and Aboriginal families were forced to attend boarding schools where their languages were made illegal, their cultures were denigrated, and death rates from disease were far above average. However, in recent decades some tribes have developed more affluence on the reservations and territories by establishing manufacturing industries; extracting fossil fuel, uranium, and other mineral deposits under their lands; or opening casinos. One measure of this economic resurgence is population growth. Expanding from a low of 400,000 in 1907, the Native American population, at less than 2 percent of the total population, stood at approximately 6.6 million in 2015 in the United States. In Canada, Aboriginal peoples number over 1.7 million, or 3.8 percent of the population in 2016.

### The Changing Regional Composition of North America

The regions of European-led settlement still remain in North America, but they are now less distinctive. The economic core region is less dominant in industry, which has spread to other parts of the continent. Some regions, such as the Pacific Northwest, that were once dependent on agriculture, logging, or mineral extraction now have high-tech industries as well. The West Coast, in particular, has blossomed with a high-tech economy and a rapidly expanding population that includes many immigrants from Asia and Middle and South America. The West Coast also benefits from North America's trade with Asia, which now surpasses trade with Europe in volume and value.

### CHECK YOUR UNDERSTANDING

1. When did humans first come to North America and by what route?
2. What was the first European power to explore west of the Mississippi?
3. What biological factor facilitated European expansion into North America?
4. Where in North America did Europeans first bring Africans, and for what purpose?
5. What region in North America was the first to develop industries?
6. What was North America's early-twentieth-century economic core, and where was it located?
7. What parts of North America were settled relatively later?
8. How many Native American and Aboriginal peoples lived in North America in 1492? How many remained by 1907? How many were there in 2015–2016?

## GLOBALIZATION AND DEVELOPMENT



**2.4** Describe North America's position in the global economy and how globalization has transformed the region.

Globalization has reoriented North America toward knowledge-intensive service sector jobs that require education and training. Income inequality has risen as most manufacturing jobs have been moved to countries with cheaper labor or have been replaced by technology. North America's size and wealth have made it the center of the global economy, and its demand for imported goods and its export of manufacturing jobs make it a major engine of globalization.

The economic systems of Canada and the United States have much in common. Both are prosperous mixed economies, where capitalist market "free enterprise" systems coexist with strong government regulation and extensive public services. Both countries evolved from societies based mainly on family farms. Both then had an era of industrialization followed by a transformation to a primarily service-based economy, and both have important technology sectors and an economic influence that reaches worldwide.

### FROM MANUFACTURING TO SERVICES

After industrializing throughout the nineteenth and early twentieth centuries, manufacturing employment peaked in North America during World War II, when 38 percent of the U.S. workforce was employed in manufacturing, much of it in the Old Economic Core. Even then services employed almost twice as many people, and by the 1960s, manufacturing jobs were in decline. The geography of manufacturing was also changing as corporations tried to boost profits by relying more on technology and cheaper labor outside the Old Economic Core. In the Old Economic Core, higher pay and benefits and better working conditions won by labor unions led to increased production costs. This lowered the high profits demanded by the owners and shareholders of manufacturing corporations. A number of companies began moving their factories to the southeastern United States, where wages were lower and corporate profits higher because of the absence of labor unions. Today, more than half a century into this process of deindustrialization, many cities of the Old Economic Core have large abandoned industrial districts.

Since the late 1980s, the United States and Canada have entered into free trade agreements (see Chapter 1) that have enabled many manufacturing industries (such as clothing, electronic assembly, and auto parts manufacturing), to move south to Mexico or overseas to China and other places where labor is significantly cheaper than it is in North America. Companies have also saved on production costs because laws that in the United States and Canada regulate environmental protection and safe and healthy workplaces are absent or less strictly enforced in those other countries.

Technology and automation have also contributed at least as much and possibly more to the decline of manufacturing employment than has the movement of jobs to other countries. The steel industry provides an illustration. In 1980, huge steel plants, most of them in the economic core, employed more than 500,000 workers. At that time, it took about 10 person-hours and cost about U.S.\$1000 to produce 1 ton of steel. Spurred by more efficient



foreign competitors, the North American steel industry applied new technology to lower production costs, improve efficiency, and increase production. By 2017, steel was being produced at the rate of 1.5 person-hours per ton and at a cost of about U.S.\$200 per ton. The reorganized steel industry in the United States now produces much of the steel in small, highly efficient minimills distributed throughout the United States. In total, the steel industry now employs fewer than half the workers it did in 1980. Throughout North America, this trend toward higher efficiency has resulted in fewer people producing more of a given product at a far lower cost than was the case 40 years ago. Remarkably, even as employment in manufacturing has declined over the last three decades, now standing at around 8 percent of total employment, the actual amount of manufacturing output has steadily increased.

The economic base of North America is now a broad *tertiary sector* in which people are engaged in various services such as transportation, utilities, wholesale and retail trade, health, leisure, maintenance, finance, government, information, and education. As of 2018, in both Canada and the United States about 80 percent of jobs and a similar percentage of the gross national income (GNI) were in the tertiary, or service, sector. There are high-paying jobs in all the service categories, but low-paying jobs are far more common. The largest private employer in the United States is the discount retail chain Walmart (1.4 million employees), where the average wage is U.S.\$14 an hour, or U.S.\$28,000 a year, full time. This is just slightly above the poverty level for a family of four in the United States. Moreover, roughly half of Walmart employees are part time, earning roughly U.S.\$11 an hour on average and receiving no company benefits or health care. Because of low wages, many Walmart workers are forced to turn to government programs to meet their basic needs, costing taxpayers as much as U.S.\$6 billion a year. Walmart creates primarily retail jobs because, for the most part, its wares are manufactured abroad.

## THE KNOWLEDGE ECONOMY

An important and rapidly growing subcategory of the service sector involves the creation, processing, and communication of information—what is often called the *knowledge economy*. The knowledge economy includes workers who manage information, such as those employed in finance, journalism, higher education, research and development, and many aspects of health care. It also includes the *information technology* or *IT* sector, which deals with computer software and hardware and the management of digital data.

Industries that rely on the use of computers and the internet to process and transport information are freer to locate where they wish than were the manufacturing industries of the Old Economic Core, which needed locally available material resources such as steel and coal. These newer industries are more dependent on skilled managers, communicators, thinkers, and technicians, and are often located near major universities and research institutions.

Crucial to the knowledge economy is the internet, which was first widely available in North America and has emerged as an economic force more rapidly there than in any other region in the world. With only 5 percent of the world's population, North America accounted for 8.2 percent of the world's internet users in 2017. Roughly 88 percent of the population of both the United States and Canada uses the internet, compared to 86 percent of the

European Union (EU) and 52 percent of the world as a whole. The total economic impact of the internet in North America is hard to assess, but retail internet sales increase every year, accounting for 13 percent of total retail sales in 2017 and roughly half of the growth in retail sales since 2016.

The growth of internet-based activity makes access to the internet crucial in North America. Unfortunately, a **digital divide**—a discrepancy in access to information technology between small, rural, and poor areas and large, wealthy cities—has developed, because about a quarter of the North American population is not yet able to afford computers and home internet connections.

## GLOBALIZATION AND FREE TRADE

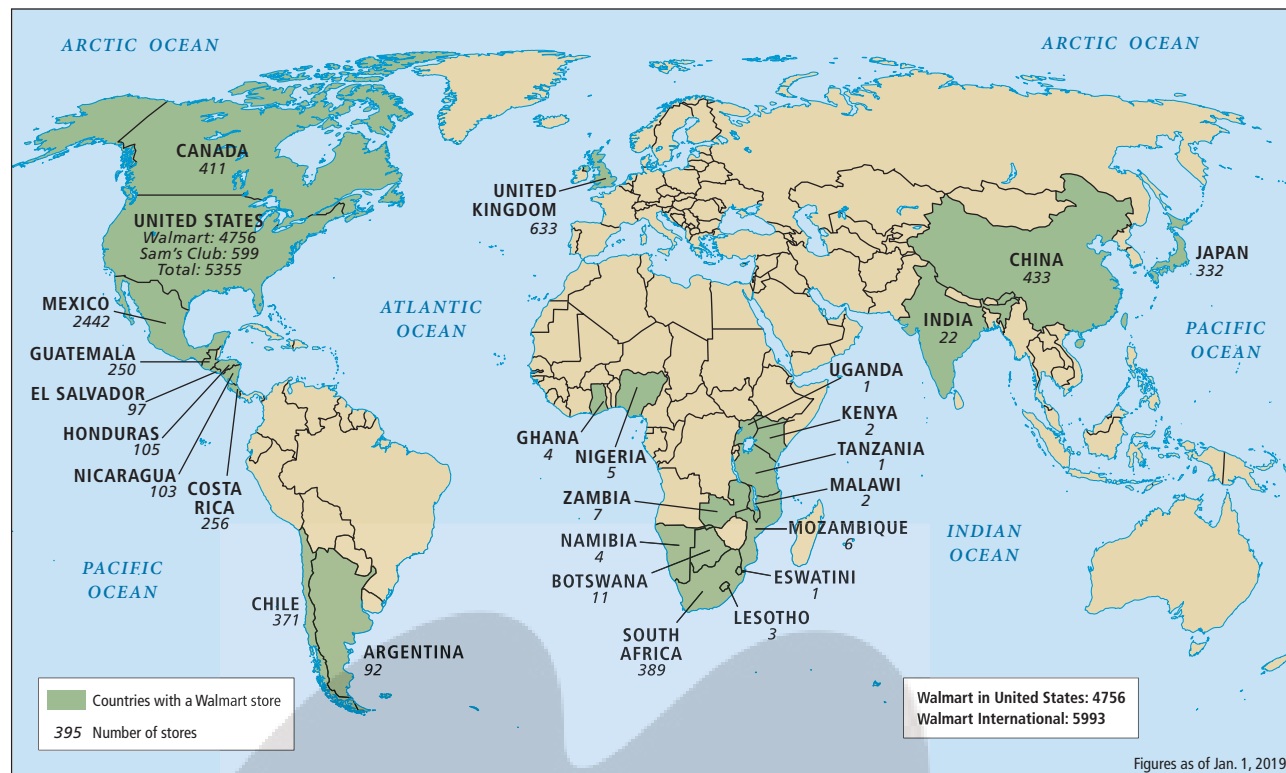
The United States and Canada are major engines of globalization through the size and technological sophistication of their economies. Their combined economy is almost as large as that of the entire European Union. North America's advantageous position in the global economy is also a reflection of its geopolitical influence—its ability to mold the pro-globalization free trade policies that suit the major corporations and the governments of North America. However, free trade has not always been emphasized, and public support for it has lagged in recent years as so many poor people have seen their incomes decline while wealthy people get even richer.

Before North America's rise to prosperity and global dominance, trade barriers were important aids to the region's development. For example, when it became independent of Britain in 1776, the new U.S. government imposed tariffs and quotas on imports and gave subsidies to domestic producers. This protected fledgling domestic industries and commercial agriculture, allowing its economic core region to flourish.

Because Canada and the United States are both wealthy and globally competitive exporters, leaders in business and government generally see tariffs and quotas as obstacles to North America's economic expansion. Thus, they usually advocate for trade barriers to be reduced worldwide. Critics of these free trade policies are many. Some argue that shrinking or defunct manufacturing industries could grow again with the assistance of tariffs like the ones that rapidly growing countries, such as China, currently use. Others argue that the benefits of free trade go mostly to well-paid financiers, deal brokers, and managers of large businesses, while many workers end up losing their jobs to cheaper labor overseas, or see their incomes stagnate. Furthermore, there is some evidence of protectionist policies working in favor of businesses in North America. For example, both the United States and Canada give significant subsidies to their farmers, which have enabled them to compete in the global food trade.

Despite considerable opposition, free trade has been a guiding principle in economic relations between the United States and Canada for many years. The process of reducing trade barriers began formally with the Canada–U.S. Free Trade Agreement of 1989. Mexico was included when the North American Free Trade Agreement (NAFTA) was created in 1994, and the agreement was renegotiated and renamed the **United States–Mexico–Canada Agreement (USMCA)** in 2018.

**digital divide** the discrepancy in access to information technology between small, rural, and poor areas and large, wealthy cities that contain major governmental research laboratories and universities



**Figure 2.19 Walmart on the global scale.** Today, Walmart has more than 11,000 retail stores in 28 countries and employs 2.2 million people around the world (about 1.4 million in the United States). [Data from: <http://corporate.walmart.com/our-story/our-locations#>]

The major long-term goal of USMCA is to increase the amount of trade between Canada, the United States, and Mexico. Today, it is the world's largest trading bloc in terms of the gross domestic product (GDP) of its member states. USMCA is only 1 of 14 free trade agreements that the United States and Canada have with countries around the world. Both Canada and the United States are members of the World Trade Organization (see Chapter 1).

The impacts of free trade agreements are hard to assess because it is difficult to tell whether the many observable changes in the North American economy that have occurred over the past three decades, when most free trade agreements were entered into, have been caused by the agreements or by other changes in regional and global economies. However, a few things are clear. Trade has increased, and many companies are making higher profits because they now have larger markets. Since 1990, exports among the

USMCA countries have increased in value by more than 300 percent. By value, USMCA's exports to the world economy have increased by about 300 percent for the United States and Canada and by 600 percent for Mexico. Some U.S. companies, such as Walmart, expanded aggressively into Mexico after 1994 when NAFTA was passed. Mexico now has more Wal-marts (2306 retail stores) than any country

except the United States, which has 5249 (Figure 2.19). Canada has 411 Wal-marts.

Free trade has increased the tendency of the United States to spend more money on imports than it earns from exports. This imbalance is called a **trade deficit**. Before NAFTA, the United States usually had much smaller trade deficits with Mexico and Canada. After the agreement was signed, these deficits rose dramatically, especially with Mexico. For example, between 1994 and 2017, the value of U.S. exports to Mexico increased from roughly U.S.\$50 billion to \$276 billion, while the value of imports increased from U.S.\$49 billion to \$339 billion. This amounts to a shift from a slight trade surplus in 1994 of U.S.\$1 billion to a deficit in 2017 of U.S.\$63 billion.

Free trade may also have resulted in a net loss of jobs in the United States. Since 1994, increased imports from Mexico and Canada have displaced about 2 million U.S. jobs, while increased exports to these countries have created only about 1 million jobs. The export-related jobs that free trade agreements facilitate pay up to 18 percent more than the average North American wage. However, those jobs are usually in different locations than the ones that were lost and the people who take them tend to be younger and with different skills than those who lost jobs. Former manufacturing workers often end up with short-term contract jobs or low-skill, often service sector, jobs that pay the minimum wage and include no benefits. In Canada, these impacts of free trade have been moderated by Canada's more extensive assistance to low-income people.

**United States-Mexico-Canada Agreement (USMCA)** a revised version of the North American Free Trade Agreement made in 1994 that added Mexico to the 1989 economic arrangement between the United States and Canada

**trade deficit** the extent to which the money earned by exports is exceeded by the money spent on imports



### The Asian Link to Globalization

Low trade barriers with Asia have been a powerful force for globalization in North America. The seemingly endless variety of goods imported from China—everything from underwear to the chemicals used to make prescription drugs—is made possible in large part by China's lower wages and wide variety of policies that subsidize exports. Many factories that first relocated to Mexico from the southern United States later moved to China to take advantage of its enormous supply of cheap labor. By some estimates as many as 2.4 million U.S. jobs were lost between 1999 and 2011 as a result of low trade barriers with China.

While political pressure to raise trade barriers with Asia has grown in recent years, the effects of trade barriers are more complex than many voters think. For example, some barriers may actually encourage Asian investment in North America. For example, Japanese and Korean automotive companies that want to import whole cars into North America have for decades had to pay tariffs and face other restrictions. To avoid these, they have located plants in North America, often establishing them in the rural mid-South of the United States or in southern Canada.

### Backlash Against Globalization and Free Trade

Concerns about globalization and free trade were heightened by the worldwide economic downturn that began in 2007. Now referred to as the *Great Recession*, this event came on the heels of an economic expansion fueled by a booming U.S. housing industry. This growth was based on banks allowing millions of buyers to purchase homes with mortgages that were well beyond their means. By 2007 it became clear that much of the growth was unstable and unsustainable. Growth in the U.S. housing industry came to a sudden halt, and when too many homebuyers could no longer afford their mortgage payments, the banks that had lent them money started to fail. This produced worldwide ripple effects because many foreign banks were involved in the U.S. housing market. Between September 2008 and March 2009, the U.S. stock market fell by nearly half, wiping out the savings and pensions of millions of Americans. Similar plunges followed in foreign stock markets, ultimately resulting in a worldwide economic downturn because businesses could no longer find money to fund expansion. As the recession intensified, job losses in the United States caused a sharp drop in consumption, which further affected world markets.

Thanks to its strong regulatory controls, Canada did not have bank failures. However, because so much of the Canadian economy is linked to exports and imports from the United States, Canada underwent a slowdown and many Canadians lost their jobs. Canada's recovery was quicker than that of the United States, though, possibly because household consumption was buttressed by Canada's stronger social safety net.

Efforts to deal with the causes of the recession, and the disparity in wealth that it worsened, haven't yet been very successful. The financial industry has funded extensive lobbying to counter attempts to better regulate the banks that, through their lending practices, sparked the recession. Meanwhile millions of U.S. voters who saw their incomes fall blamed globalization and free trade, not a poorly regulated financial industry, focusing on the movement of jobs from the United States to China, Mexico, and elsewhere.

Donald Trump made use of this and other sources of discontent in the United States to win the presidency in 2016.

After years of criticizing the movement of U.S. jobs abroad due to cheaper labor, the Trump administration began a "trade war" with China in 2018 by placing tariffs on a wide range of Chinese exports to the United States. China retaliated by raising tariffs on many U.S. goods. The tariffs were subsequently extended to other countries, including Canada, Mexico, the European Union, Japan, and Iran, with the Trump administration holding out the possibility of making the tariffs apply to all countries. Most U.S. industries have been highly critical of the tariffs, claiming they will raise costs for U.S. products that depend on imported materials subject to the tariffs, such as steel and aluminum. While the overall economic impact of the trade war is not yet clear, it has resulted in the renegotiation of trade relationships, with the United States pushing for greater protections for its economy or, alternatively, fewer tariffs placed on its goods by other countries, but above all a reduction of its trade imbalances with most countries.

Supporters of tariffs can point to many examples where tariffs would seem to be justified out of a sense of fairness. For example, the United States has historically maintained low barriers for the wide array of Chinese goods entering the country, but China has long had high tariffs on U.S. manufactures, such as cars. China has also forced U.S. companies to transfer patents and technology to Chinese companies in return for access to cheap labor or to the country's huge domestic markets. At times Chinese companies have also stolen technology from U.S. companies.

The current backlash against free trade is partially a response to these concerns, but it is also a result of growing disparities in wealth in North America that have been underway since the 1970s (**Figure 2.20**). This trend is global, but it is extreme in the United States, where in 2017 the wealthiest 1 percent of households owned 39 percent of the country's total wealth, and the bottom 90 percent owned only 23 percent of the wealth. While there is scholarly evidence for and against the notion that free trade and globalization have resulted in greater income disparity, key members of the Trump administration believe that it does and are willing to support a trade war to try to get back jobs lost to overseas competitors.

### U.S.–Canadian Economic Interdependence

The trade war that began in 2018 highlighted the economic interdependence of Canada and the United States. The two countries engage in mutual tourism, direct investment, migration, and, most of all, trade in a wide variety of goods. Canada is the second-largest market for U.S. goods, after the European Union. By 2017, that trade relationship had evolved into a two-way flow of U.S.\$673 billion annually (**Figure 2.21**). In 2017, 14 percent of U.S. imports came from Canada and 17 percent of U.S. exports went to Canada. In the same year Canada sold 75 percent of its exports to the United States and bought 58 percent of its imports from the United States. With such a greater proportion of its economy tied to the United States, the trade war is a much greater threat to Canada than it is to the United States.

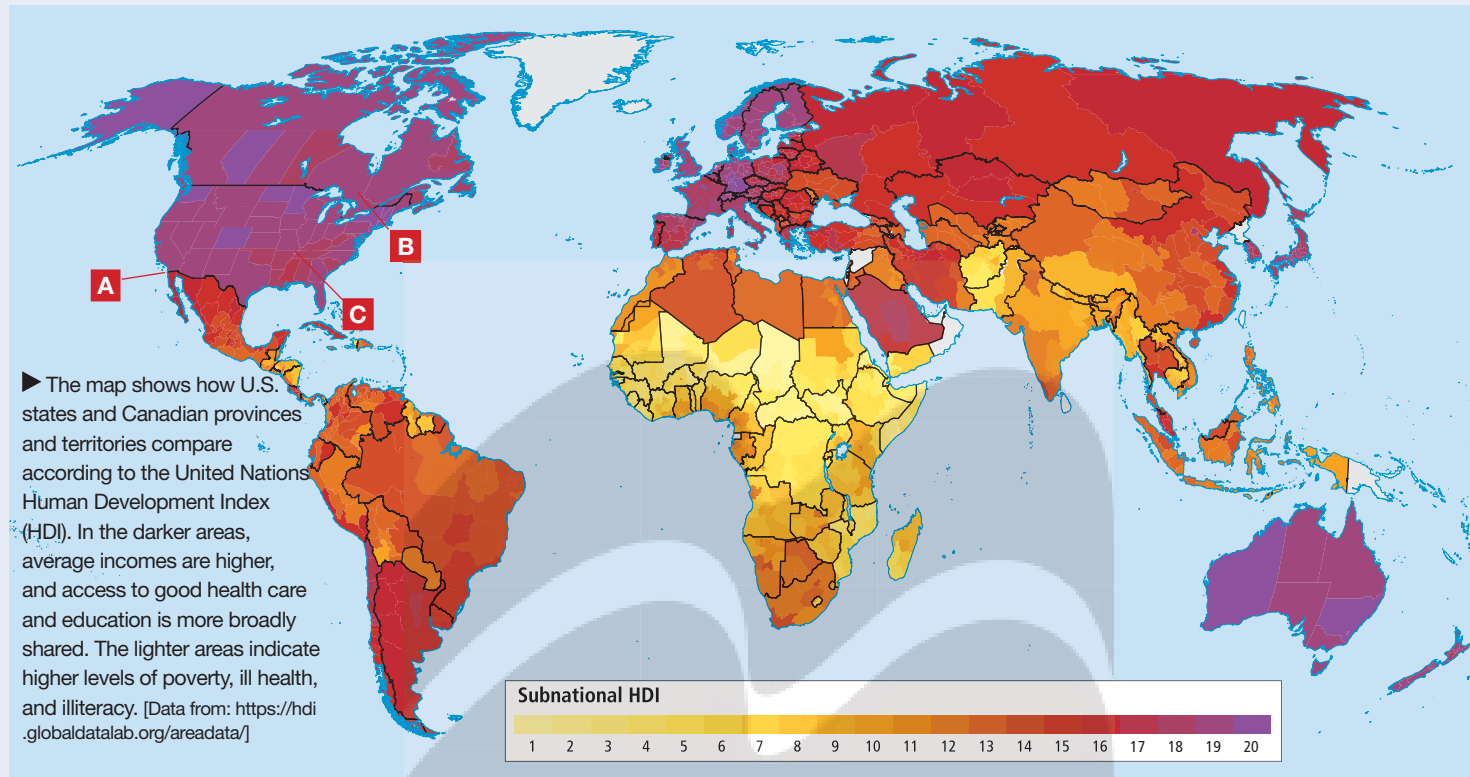
## WOMEN IN THE ECONOMY

While North American women have made steady gains in terms of pay equity and overall participation in the labor force, there are

Globalization has reoriented North America toward knowledge-intensive service sector jobs that require education and training. Income inequality has risen as manufacturing jobs have been moved abroad or replaced by technology. While North America's size and wealth mean it is still at the center of the global economy, there are also areas of relatively low human development.

## THINKING GEOGRAPHICALLY

- A** What percentage of U.S. workers earns below \$15 an hour?
- B** What are two causes of the decline in manufacturing employment in North America?
- C** The United States spends more on its social safety net than any country in the world except for \_\_\_\_\_?



**A** **Service workers protest.** A striking McDonald's employee is arrested during a protest for a higher minimum wage in Los Angeles. Many service industry jobs pay wages well below what is necessary to support a family. [David McNew/Getty Images]

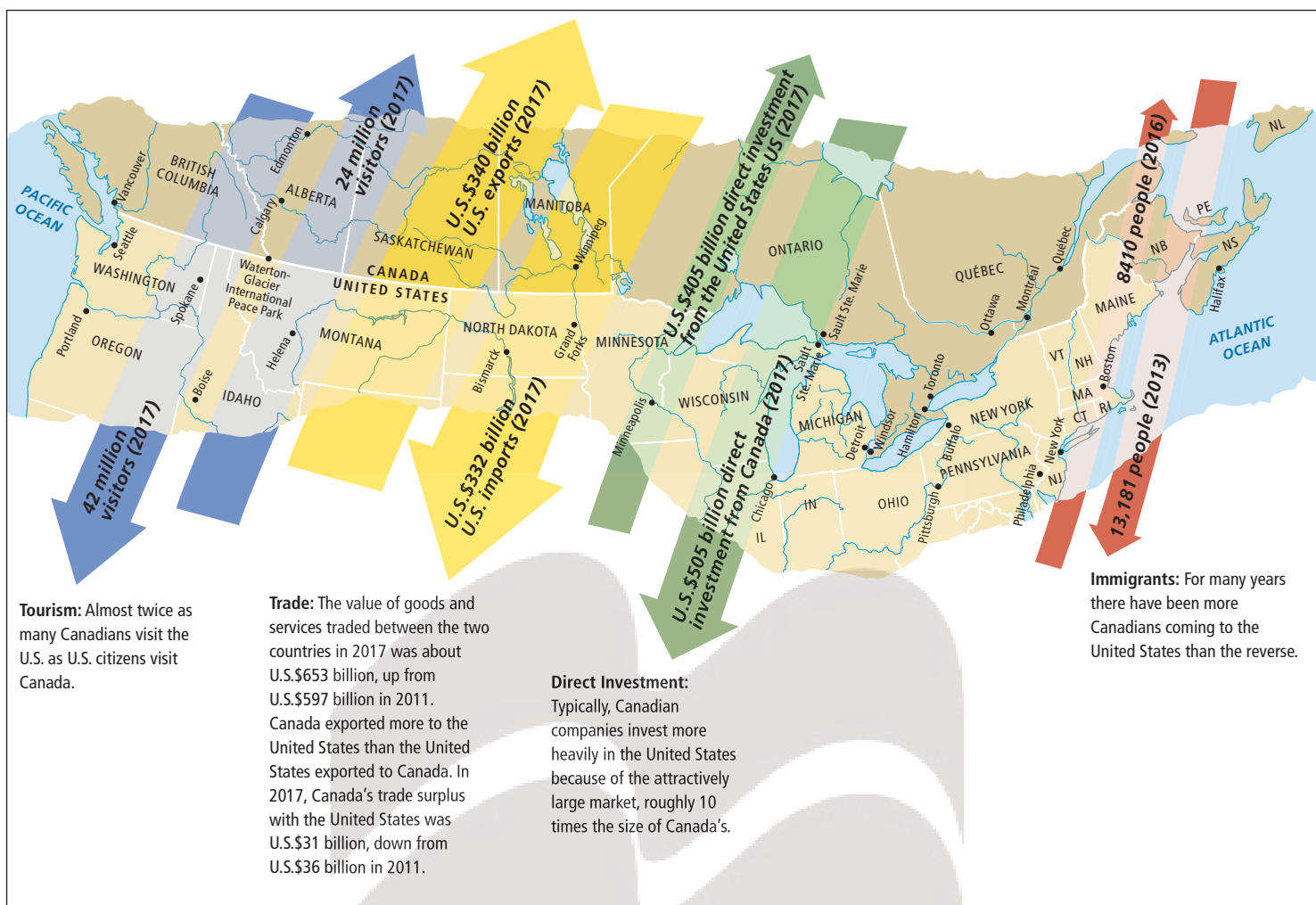


**B** **Automation.** Robots weld car bodies on a General Motors assembly line in Oshawa, Ontario, in Canada. Automation has been occurring for decades in North America and may account for more job losses in manufacturing than globalization. This photo was taken in 1985. [Keith Beaty/Toronto Star via Getty Images]



**C** **Income disparity.** An uninsured family waits to receive treatment at a temporary free health-care clinic in Bristol, Tennessee. Access to health care is a major component of human development, which is lower in the southeastern United States. [Mario Tama/Getty Images]





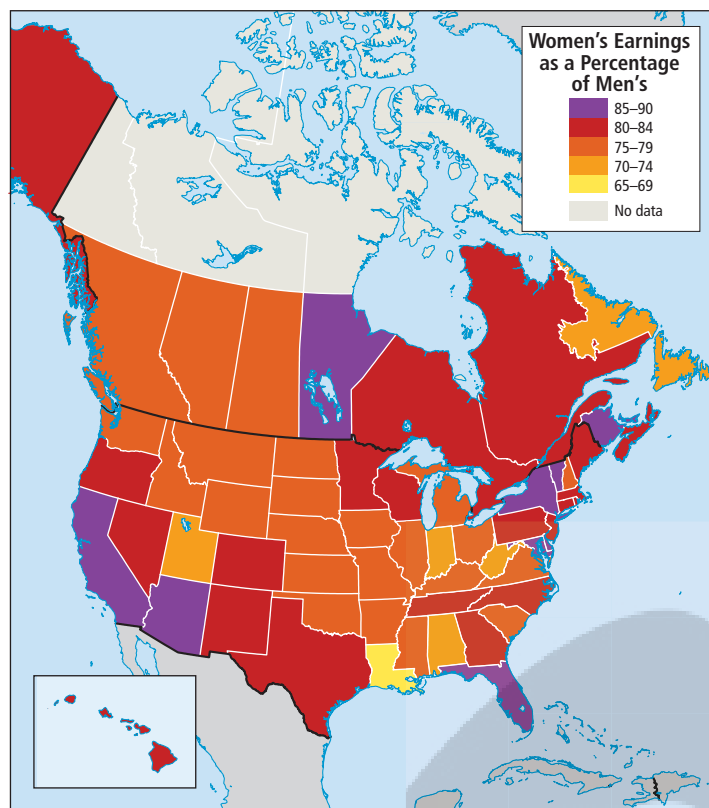
**Figure 2.21** Transfers of tourists, goods, investment, and immigrants between the United States and Canada.

Canada and the United States have one of the world's largest trading relationships. The flows of goods, money, and people across the long Canada–U.S. border are essential to both countries. However, because of its relatively small population and economy, Canada is more reliant on the United States than the United States is on Canada. All amounts shown are in U.S. dollars. [Research from: *National Geographic*, February 1990: 106–107; and augmented with data from <https://ustr.gov/countries-regions/americas/canada>, <http://canadaimmigrants.com/canada-immigrants-by-source-country-2016/>, <https://www150.statcan.gc.ca/n1/daily-quotidien/180425/dq180425a-eng.htm>, and <https://www150.statcan.gc.ca/n1/daily-quotidien/180220/dq180220c-eng.htm>]

still important ways in which they lag behind their male counterparts. On average, North American female workers earn about 82 cents for every dollar that male workers earn, with both the United States and Canada having about the same gender pay gap, though there is considerable variation among states and provinces (Figure 2.22). This is actually an improvement over previous decades. During World War II, when large numbers of women first started working in male-dominated jobs, North American female workers earned, on average, only 57 percent of what male workers earned. The advances made by this older generation of women and the ones that followed have transformed North American workplaces. For the first time in history, women now represent more than half of the North American labor force, though most still work for male managers.

Throughout North America, the number of women entrepreneurs is on the rise, and women start nearly half of all new businesses. While women-owned businesses tend to be small and less financially secure than those in which men have most of the control, credit opportunities for businesswomen have been improving as more upper-level jobs in banking are held by women. Women are also facing less discrimination in hiring; a 2012 study shows that many male executives now prefer to hire qualified women because they are particularly ambitious and willing to gain advanced qualifications.

In secondary and higher education, North American women have equaled or exceeded the level of men in most categories. In 2016 in the United States, 40 percent of women between the ages of 25 and 34 held an undergraduate degree, compared to just 33 percent of men.



**Figure 2.22** Women's earnings as a percentage of men's in U.S. states and Canadian provinces and territories, 2016. Women's earnings as a percentage of men's vary across North America. Both countries show a general pattern of higher gender pay gaps in western states and provinces, and relatively lower pay gaps on the coasts. [Data from: <https://www.conferenceboard.ca/hcp/provincial/society/gender-gap.aspx?AspxAutoDetectCookieSupport=1> and <https://nwlc.org/resources/wage-gap-state-state/>]

## NORTH AMERICA'S CHANGING FOOD-PRODUCTION SYSTEMS

Agriculture is somewhat paradoxical in this region, occupying huge areas of land, producing enormous amounts of food, resulting in gigantic environmental impacts, but contributing relatively little to each country's GDP, mostly because other sectors of the economy are so large and prosperous. Agriculture now accounts for less than 1.2 percent of the United States' GDP and less than 2 percent of Canada's. Due to mechanization, fewer than 2 percent of North Americans are employed directly in agriculture. This is a dramatic shift for a region where agricultural exports were once the backbone of the economy. Nevertheless, North America remains a key part of the global food trade, with the United States the world's largest food exporter, and Canada the eighth largest. Agriculture is more predominant in

the United States, where 44 percent of the total land area is under cultivation. Only 7 percent of land is cultivated in Canada, due to much harsher winters (**Figure 2.23**).

The shift to mechanized agriculture in North America brought

**agribusiness** the business of farming conducted by large-scale operations that purchase, produce, finance, package, and distribute agricultural products

about sweeping changes in employment and farm management. In 1790, agriculture employed 90 percent of the American workforce; in 1890, it employed 50 percent. Until 1910, thousands of very productive family-owned farms, located over much of the United States and southern Canada, provided for most domestic consumption and the majority of all exports. Today, the vast majority of these smaller family-run farms have been replaced by large operations owned by corporations.

### Family Farms Give Way to Agribusiness

Family farms began to be mechanized and use chemical fertilizers in the late nineteenth century. Mechanical corn-seed planters and steam-powered threshing machines, along with methods of supplying farmers with large amounts of plant nutrients such as nitrogen, phosphate, and potassium, reduced the need for labor on farms. Because of the cost of this machinery, farmers needed to make ever-larger investments in land in order for their farms to remain profitable. By the 1940s, the use of pesticides (chemicals that kill insects and other pests) and herbicides (chemicals that kill weeds) also became widespread, adding further to both the productivity and cost of farming. By the mid-twentieth century, the number of farms began to decline rapidly, as only wealthier farmers could invest in these green revolution methods (see Chapter 1). Some farmers prospered, while many with fewer resources sold their land, hoping to make a profit sufficient for retirement. Indebtedness and bankruptcies have become increasingly common for both large and small farmers.

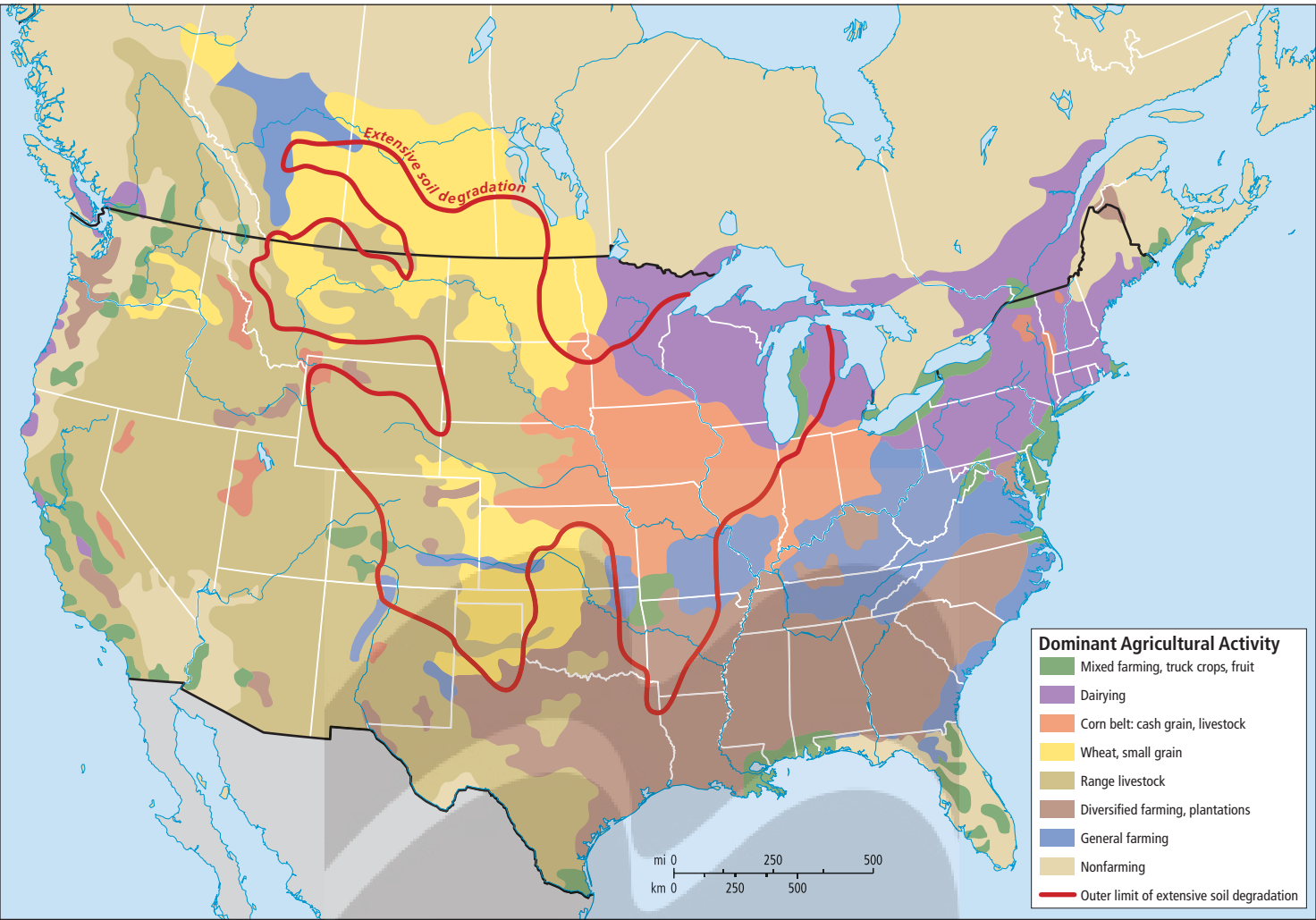
A major part of the transformation of North American agriculture has been the growth of large **agribusiness** corporations that sell machinery, seeds, and chemicals. These corporations may also produce and process crops themselves on land they own, or they may contract to purchase crops from independent farms. The financial resources of agribusiness corporations have facilitated the transition to green revolution methods, enabling large investments in the research and development of new products. The corporations can also provide loans and cash to individual farmers, often as a part of contracts that leave farmers with little actual control over which crops are grown and what methods are used.

While green revolution agriculture provides a wide variety of food at low prices for North Americans, the shift to these production methods has depressed local economies and created social problems in many rural areas. Communities in places such as the Great Plains of both Canada and the United States were once made up of farming families with similar middle-class incomes, social standing, and commitment to the region. Today, farm communities are often composed of a few wealthy farmer-managers amid a majority of poor, often migrant Latino or Asian laborers who work on large farms and in food-processing plants for wages that are too low to provide a decent standard of living. These workers also struggle to be accepted into the communities where they live.

### Food Production and Sustainability

Can green revolution agriculture, like that practiced by successful North American corn farmers, persist over time? Many modern strategies to increase yields, including the use of chemical fertilizers, pesticides, and herbicides, and the large-scale production of meat on "factory farms," can have negative effects. These methods can threaten the health of farmworkers and nearby residents,





**Figure 2.23 Agriculture in North America.** Throughout much of North America, some type of agriculture is possible. The major exceptions are the northern parts of Canada and Alaska and the dry mountain and basin region (the continental interior) that lies between the Great Plains and the Pacific coastal zone. However, in some marginal areas, such as Southern California, southern Arizona, and the Utah Valley, irrigation is needed for cultivation. [Research from: Arthur Getis and Judith Getis, eds., *The United States and Canada: The Land and the People* (Dubuque, IA: William C. Brown, 1995), p. 165]

pollute nearby streams and lakes, degrade soils, and even affect distant coastal areas (see the “Environment” section).

Recently, researchers have been studying the long-term impacts of genetically modified (GMO) crops on human health and the environment. While most scientific studies suggest that GMO plants have little impact on human health, many of these studies have been funded or even conducted by the agribusiness corporations that create GMO crops, making it possible that the studies might be biased. The biggest documented impact that GMO plants have had on the environment is in the way they have influenced the use of herbicides and pesticides. While some varieties of GMO crops have been developed to be more resistant to insects and other pests, and so require fewer pesticides, others are designed to tolerate and even require more intensive use of herbicides, which in turn pollutes waterbodies nearby and downstream.

Critics of these food production systems argue that the government subsidies currently being given to farmers should be used as a tool for reform. They advocate directing subsidies away from

factory farms and large-scale, chemically intensive crop production and toward small farmers who are willing to use methods that have fewer negative impacts.

Throughout North America, there is a revival of small family farms that supply **organically grown** (produced without chemical fertilizers, herbicides, or pesticides) vegetables and fruits and grass-fed meat directly to consumers. Farmers’ markets have popped up across the country (Figure 2.24), and more and more people are buying locally grown organic foods, paying higher prices than those in traditional grocery stores. This movement is gaining such favor that large corporate farms are seeing the potential for high profits in sustainable (that is, organic), if not locally grown, food production. Organic food production can reduce harmful impacts on the environment because it uses less-polluting methods. Consumers also gain from higher-quality, toxin-free vegetables and fruits.

**organically grown** products  
produced without chemical  
fertilizers, herbicides, and  
pesticides



**Figure 2.24 Organic farming.** Jason Plotkin carries white, golden, and red beets at his Golden Acre Farm, a small organic vegetable farm next to North Table Mountain in Golden, Colorado. Plotkin regularly harvests produce that he will sell the next day at a nearby farmer's market. [Denver Post Photo by Cyrus McCrimmon/Getty Images]

## CHANGING TRANSPORTATION NETWORKS AND THE NORTH AMERICAN ECONOMY

North America depends on an extensive network of road and air transportation that enables the high-speed movement of people and goods. The road system originated with the first European settlement in the 1500s in Florida, but until the development of the first railways in the 1820s, most goods were moved on rivers, canals, and the coastal seas. By the 1870s, the railroads had formed a nationwide network that dominated transportation until inexpensive automobiles were mass-produced in the 1920s. Beginning in the 1950s, the growth of automobile- and truck-based transportation was helped by the U.S. Interstate Highway System and the Trans-Canada Highway System—a huge network of high-speed, multilane roads that continues to dominate transportation in North America. Because this network is connected to the vast system of local roads, it can be used to deliver manufactured products faster and with more flexibility than can be done using the rail system. The highways have thus made it possible to disperse thousands of jobs in industry and related services into suburban and semi-rural locales across the country, where land is cheaper and living costs are lower. An often-noted aspect of the North American system is the absence of effective intercity passenger rail for most of the region.

After World War II, air transportation became a central part of transportation in North America. The primary niche of air transportation is business travel, because face-to-face contact remains essential to American business culture despite the growth of telecommunications and the internet. With many industries widely distributed across numerous medium-sized cities, air service is organized as a *hub-and-spoke network*. Hubs are strategically located airports, such as those in Atlanta, Chicago, Dallas, and Los Angeles. These airports serve as collection and transfer points for passengers and cargo continuing on to smaller cities and towns. Most airports are also located near major highways, which provide an essential link for high-speed travel and cargo shipping.

## CHECK YOUR UNDERSTANDING

1. What is North America's position in the global economy?
2. How has North America influenced, and been transformed by, globalization?
3. What economic sector is most important in North America and why?
4. What factors have led to a backlash against free trade in the United States in recent years?
5. What is an important way in which North American women lag behind their male counterparts? In what way are they ahead of their male counterparts?
6. By what measure is North American agriculture relatively inconsequential, despite its huge influence on land use and the environment?
7. How has the highway system influenced the location of jobs and related services in North America?

## POWER AND POLITICS

**2.5** Identify the major similarities and differences between Canada and the United States in the roles each country's government plays domestically and internationally.

North America is home to the world's greatest "superpower," the United States, which has the world's largest military and second-largest economy. The United States regularly acts on the global geopolitical stage to protect and extend its economic and strategic interests; however, limited success in the wars in Afghanistan and Iraq, as well as challenges from a new alliance of powerful countries, are exposing the limits of U.S. power. Within North America, political freedoms are continuing to expand, but so is disillusionment with the power of money in the political process. Major differences remain between Canada and the United States in how they assist lower-income members of society, and in their approach to illegal drugs, especially marijuana.

## INFLUENCE OF THE UNITED STATES AND CANADA ABROAD

The United States and Canada have dramatically different roles in the global geopolitical order. The United States is recognized as the most powerful country in the world, with a military budget equivalent to the next seven highest-spending countries combined. While the promotion of democracy and political freedoms is an official goal of U.S. foreign policy, in practice, the United States tends to focus its activities abroad on the protection and extension of its own economic and strategic military interests, which are often linked. This can be seen, for example, in the recent U.S. war in Iraq (2003), which numerous planners of the war within the Bush administration (2000–2008) now acknowledge was motivated more by a desire to control access to Iraq's lucrative oil reserves than to bring democracy to Iraq (**Figure 2.25**).

U.S. economic and strategic interests are reflected in the global distribution of its military bases and its spending on aid to foreign governments. Four main concentrations of bases and spending,





where the United States has for years had strong strategic and economic interests, can be seen on the map in Figure 2.25 in Europe (mainly Germany, Italy, and the UK), East Asia, North Africa, and Southwest Asia (especially Egypt, Israel, Iraq, Jordan), and Afghanistan and Pakistan in South Asia. The concentrations of bases and spending in Europe and East Asia relate to strategic and economic interests dating from World War II that remained relevant due to the Cold War (see Chapter 4), the subsequent collapse of the Soviet Union, the large volume of trade between the United States and Europe, and the rapid growth of U.S. trade with East Asia. The concentrations in Iraq, Iran, Afghanistan, Pakistan, Israel, and Egypt relate to the “War on Terror” (see the “Challenges to the United States’ Global Power” section) and the oil and mineral resources of South and Southwest Asia in general.

The map in Figure 2.25 also shows that there are many places where the United States does not have many bases and where spending on foreign aid is at low or moderate levels. These are generally places where the United States has fewer strategic and economic interests. If U.S. policies to support democracy abroad were a strong factor in its allocation of assistance, one might expect that the focus of U.S. spending on military assistance and foreign aid would be in the parts of sub-Saharan Africa and elsewhere that have low levels of democratization. However, due largely to the poverty and political instability of sub-Saharan Africa, the United States has few economic or strategic interests in the region (see Figure 2.25D). (The same could be said of Haiti in the Caribbean; see Figure 2.25C.) The United States has few bases and spends only a modest amount on military assistance and foreign aid in these parts of the world. Recent moves to increase spending on foreign aid have been made with an eye toward countering the influence of China in the developing world.

Canada takes a more “live and let live” approach on the world stage. While trade is a similarly strong motivator for Canada’s foreign policies and foreign aid projects, Canada has far fewer strategic military interests abroad. Arguably, Canada’s greatest geopolitical impact comes from its ability to influence the United States. As the second-largest trading partner of the United States, and one with considerable energy resources, Canada has helped to reduce U.S. dependence on overseas oil. This relationship was highlighted by the 9/11 attacks in 2001 and the subsequent Iraq War. At that time, about 25 percent of the oil imported into the United States came from the Organization of the Petroleum Exporting Countries (OPEC), which was mostly made up of the countries along the Persian Gulf, where the terrorists had come from. Recent data show that overall U.S. imports of oil have declined sharply thanks to new oil extraction techniques being used in the United States, from 60 percent of the total amount of crude oil used in 2012 to 25 percent in 2016. Canada now supplies about 40 percent of this oil (Figure 2.26).

The extraction of fuel from the oil sands of western Canada is motivated in part by U.S. uneasiness about being dependent on oil from OPEC countries. The oil sands could potentially double the amount of oil that Canada exports to the United States, substantially reducing the need for imports from OPEC countries. The United States has had antagonistic relationships with some Persian Gulf states for a number of years, which to some justifies the many environmental costs of developing Canada’s oil sands.

## CHALLENGES TO THE UNITED STATES’ GLOBAL POWER

A number of challenges to U.S. global power have emerged in recent decades. The wars in Iraq and Afghanistan exposed the limits of the ability of the United States to bring about change in other countries, and a new alliance is challenging the United States and its allies in Europe.

Immediately after the attacks on New York City and Washington, DC, on September 11, 2001 (9/11), the international community extended warm sympathy to the United States. Many governments, despite the protests of large numbers of their citizens, supported then-president George W. Bush in his launching of the *War on Terror*, defined as a defense of the American way of life and of democratic principles. The first target was Afghanistan, which was then thought to be host to Osama bin Laden and the elusive Al Qaeda network that claimed credit for masterminding the 9/11 attacks. The aim was to capture bin Laden—accomplished a decade later in 2011 when bin Laden was killed by U.S. Army Special Forces in Abbottabad, Pakistan—and remake Afghanistan into a stable ally, which still had not been done by 2018.

Although NATO (North Atlantic Treaty Organization) forces (including Canadian troops) joined U.S. forces in Afghanistan, the war proved difficult to resolve because of heavy resistance from tribal leaders within the country and from insurgents in adjacent Pakistan. Also, after the spring of 2003, attention and troop support were diverted as President Bush brought the War on Terror to Iraq, which was later shown to have had no role in the 9/11 attacks.

The wars in Iraq and Afghanistan resulted in few concrete gains, despite heavy losses of civilian life. U.S. combat troops withdrew from Iraq in 2011 and from Afghanistan in 2014, only to return shortly thereafter as both countries have remained plagued by violence. In the case of Iraq, international public opinion polls showed that the U.S. image abroad was badly damaged by what was seen as an unjust war aimed mainly at controlling Iraq’s oil resources (see Figure 2.25A, B, and the figure map).

Since 2001, an alliance of five countries has emerged as a symbol of resistance to the global power of the United States and its allies. Together, these countries—Brazil, Russia, India, China, and South Africa (known collectively as BRICS)—account for over a quarter of the world’s land area and more than 40 percent of its population, and by 2027 they will together form a larger group of economies than the United States and its major allies (Canada, France, Germany, Italy, Japan, and the United Kingdom), which are collectively known as the G7. Meeting at yearly summits, the BRICS countries are committed to establishing a “more multi-polar world order” in which the United States and its allies are less dominant. The BRICS countries are the most prominent of several groups of rapidly developing countries that are publicly challenging the current global geopolitical order.

## THE EXPANSION OF POLITICAL FREEDOMS IN THE UNITED STATES AND CANADA

Compared to many world regions, North America has relatively high levels of political freedom. This is part of a long-term trend toward more openness in political decision-making processes. However, there is also widespread dissatisfaction with the political

## PHOTO ESSAY

### 2.25 Power and Politics in North America

Political freedoms are generally well protected and democratization is at a relatively high level in North America. The United States is often thought of as using its power to promote political freedoms and democratization on a global scale. There is some truth to this. However, strategic and economic interests often play a greater role in shaping U.S. actions abroad. For example, some U.S. officials who planned the Iraq War point out that the desire to control Iraq's oil resources and those of its neighbors influenced U.S. actions there more than did the promotion of democracy. If the main U.S. interest abroad were the promotion of democracy, then sub-Saharan Africa would be the major focus of global U.S. foreign aid and military installations, given its large size, population, and the many violent conflicts that plague this region.

#### THINKING GEOGRAPHICALLY

- A** What economic interests does the United States have in Europe?
- B** What strategic and economic interests make it unlikely that the U.S. will withdraw completely from Afghanistan and Iraq in the near future?
- C** What has kept U.S. economic interests in Haiti at a low level relative to those in other countries?
- D** What has kept U.S. economic interests in Africa at a low level relative to those in other regions?



**A** A Canadian soldier wounded in Afghanistan is lifted off a plane at Ramstein Air Base, one of 260 U.S. military bases in Germany, which are a legacy of World War II and Cold War era efforts to discourage potential aggression from the (now-defunct) Soviet Union against U.S. allies in Western Europe. They have since been used to project U.S. military power throughout Asia and Africa. [Tara Walton/Toronto Star via Getty Images]



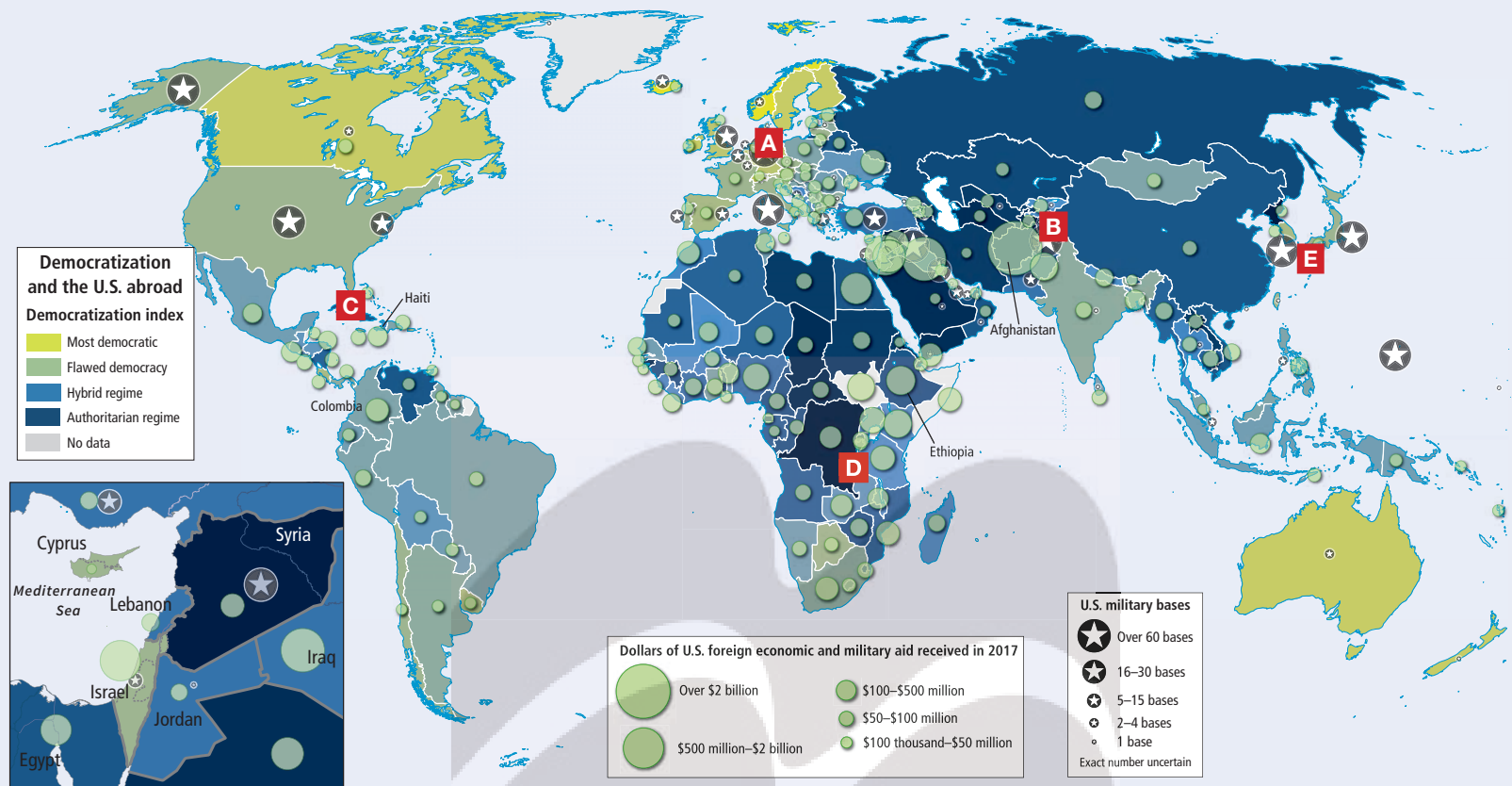
**B** A boy and his donkey transport election supplies, paid for in part by U.S. foreign aid, to a rural polling station in Afghanistan. Afghanistan became a major recipient of U.S. aid and military intervention only after the attacks of September 11, 2001 (masterminded by the Al Qaeda terrorist network, based in part in Afghanistan). Before 9/11, U.S. foreign aid to Afghanistan was much lower and U.S. military bases there were nonexistent. [SHAH MARAI/AFP/Getty Images]

**C** Forty percent of Haiti's population lives in urban slums like this one outside Port-au-Prince. There is no public sanitation or running water, and residents steal electricity from nearby power lines via improvised wiring. Haiti is far from being a functional democracy and is plagued by economic and political instability, but compared to Israel, Egypt, or Afghanistan, it receives relatively little U.S. foreign or military aid. [HECTOR RETAMAL/AFP/Getty Images]





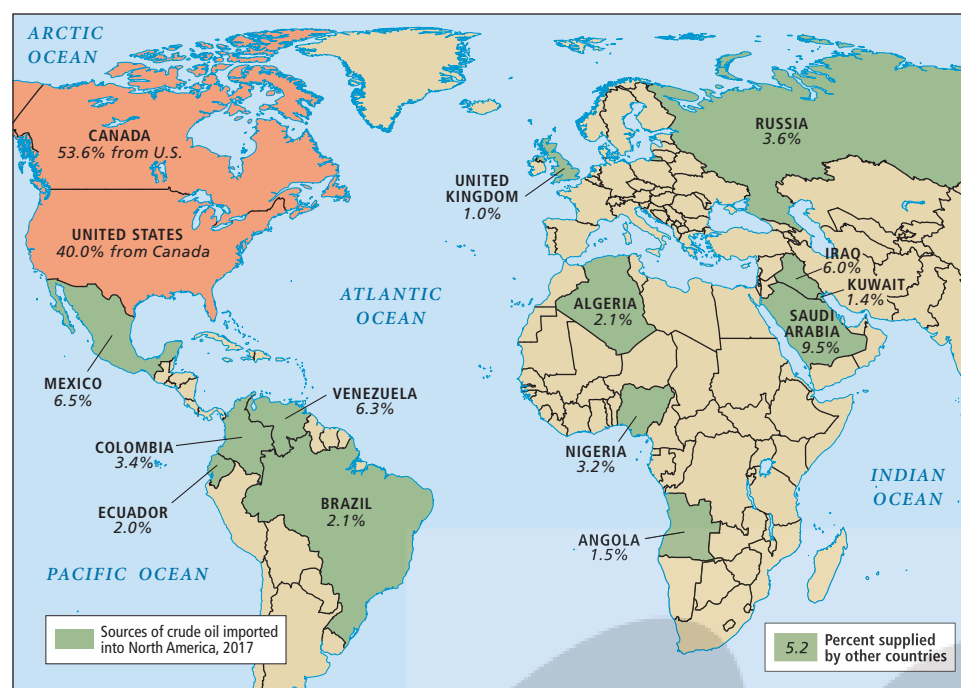
▼ On the map, countries are colored according to their score on a democracy index that uses a combination of statistical indicators to capture elements crucial to the process of democratization (see Figure 1.23 for more).



**D** A U.S. army instructor and a Malian soldier greet each other during a training exercise in 2018. Democracy is fragile throughout much of sub-Saharan Africa, and elections are often plagued by violence. While U.S. financial support for democracy in sub-Saharan Africa is growing, U.S. foreign aid to the area is relatively small, and historically the United States has done little to promote democracy in the region. The United States has few strategic or economic interests, and few military bases, in the region. [ISSOUF SANOGO/AFP/Getty Images]



**E** Japanese environmentalists protest against relocation and expansion of a U.S. military base in Okinawa, Japan. The more than 130 U.S. military bases in Japan are first and foremost a projection of U.S. power designed to counter any future aggression by China, North Korea, Russia, South Korea, or Japan itself. [Kyodo News/Getty Images]



**Figure 2.26** Top 15 sources of average daily crude oil imports into Canada and the United States, 2017. North America's dependence on imported crude oil has declined dramatically in recent years. In 2017, Canada produced more than twice as much oil as it used; but because of transportation and refining bottlenecks, much of Canada's oil has to be refined in the United States and then sold back to Canada, making the United States Canada's largest source of imported oil. In the United States, crude oil imports dropped from nearly 60 percent of the total amount of crude oil used in 2012 to 25 percent in 2017. [Data from: "U.S. Imports by Country of Origin," U.S. Energy Information Administration, at [https://www.eia.gov/dnav/pet/pet\\_move\\_impqus\\_a2\\_nus\\_ep00\\_im0\\_mbbldpd\\_a.htm](https://www.eia.gov/dnav/pet/pet_move_impqus_a2_nus_ep00_im0_mbbldpd_a.htm); and *Statistical Handbook*, Canadian Association of Petroleum Producers, at <https://www.neb-one.gc.ca/nrg/ntgrtd/mrkt/snpst/2017/02-04cndncrmptrsdcln-eng.html>]

process here, with many concerned about the dominance corporations and wealthy individuals have in shaping public policy.

Voting rights have steadily expanded over the history of both countries. They have been extended from including only white male property owners (United States, mid-1700s; Canada, 1758) to including all adult white males (United States, 1856; Canada, 1898), to including men of African descent (United States, 1870; Canada, 1837), women (United States, 1920; Canada, 1918), and indigenous peoples (United States, 1924; Canada, 1960).

The ways in which candidates for elected office are selected has also opened up in both countries. In the past, a few political insiders selected the candidates that they wanted to run for a particular office. Starting in the 1920s in the United States, candidates for office began to be selected via primaries, which are elections that determine who a political party will nominate to run as their candidate for a particular office. For example, in 2016, Hillary Clinton was chosen to be the Democratic Party's candidate for president of the United States only after she won primaries in enough states to defeat democratic socialist Bernie Sanders and move on to the general election. Primaries have only recently been adopted in Canada, in part because they are a much more expensive way to choose candidates.

### Disillusionment and the Role of Money in Politics

While there has been a trend toward more openness in the political process, there is widespread disillusionment about politics in both the United States and Canada. Evidence of this can be seen in *voter turnout*—the percentage of people who decide to cast a vote in an election—which is low relative to many other countries with similarly high levels of economic development, especially those of Europe. The United States has a generally lower voter turnout than Canada: 55 percent of voting-age U.S. citizens voted in the

presidential election of 2016, and 68 percent of voting-age Canadians voted in national elections there in 2015.

A major reason for the lower turnout in the United States is the frustration created by the role of money in politics. A potential candidate for a major office in the United States must now spend millions or, in the case of the office of the U.S. president, more than a billion dollars to win an election. Expensive elections also mean that successful candidates have to spend more of their time raising money in order to be reelected and less time doing their job representing the people who elected them. As a result, politicians tend to focus on wealthy people and corporations who can make the donations that will help them get reelected. Recent political science research comparing how public policy in the United States reflects the preferences of the voting public suggests that the policies that the federal government adopts are generally those supported by high-income "economic elites," corporations, and their associated interest groups. The research also suggests that the preferences of lower-income people have a much lower impact on federal policy.

### DEBT AND POLITICS IN THE UNITED STATES

There is much focus in the United States on the national debt. The debt consists of the money the United States borrows by issuing Treasury securities to cover the expenses it has that exceed its income from taxes and other revenues.

To whom does the United States owe its debt? As of 2018 about 43 percent of the total debt is owed to U.S. citizens who own Treasury securities, and 27 percent is owed to various federal government entities, such as the Social Security Trust Fund. About 30 percent is owed to foreign investors, mostly governments, the largest of which are China (5 percent), Japan (5 percent), and Brazil (1.4 percent).



Responses to the national debt highlight the differences between the two major political parties in the United States. Most Republicans believe that the debt is dangerous and needs to be reduced immediately by drastically reducing government spending, especially on social services such as the Affordable Care Act, education, and various kinds of aid to the poor. Many Democrats are less troubled by the debt and believe that some government spending, especially military spending and subsidies to large corporations, should be cut in order to fund social services, and that further revenues should be raised by taxing the very rich.

These differences between the two major political parties show up repeatedly in the United States, as the government's ability to raise revenue via taxation and the ways it spends this revenue are central to almost every major political issue.

## RELATIONSHIPS BETWEEN CANADA AND THE UNITED STATES

Citizens of Canada and the United States share many characteristics and concerns. Indeed, in the minds of many people—especially those in the United States—the two countries are like one. Yet that is hardly the case. Three key factors characterize the interaction between Canada and the United States: *asymmetries*, *similarities*, and *interdependencies*.

### Asymmetries

*Asymmetry* means “lack of balance.” Although the United States and Canada occupy about the same amount of space, much of Canada's territory is cold and sparsely inhabited. The U.S. population is about ten times the Canadian population. While Canada's economy is one of the largest and most productive in the world, producing U.S.\$1.6 trillion (PPP) in goods and services in 2016, it is dwarfed by the U.S. economy, which is more than ten times larger, at U.S.\$20 trillion (PPP) in 2018.

In international affairs, Canada quietly supports civil society efforts abroad, while the United States is an economic, military, and political superpower preoccupied with maintaining its role as a world leader. In framing foreign affairs policy, the United States regards Canada's position only as an afterthought, in part because the country is such a secure ally. But managing its relationship with the United States is a top foreign policy priority for Canada. As former Canadian Prime Minister Pierre Trudeau once told the U.S. Congress, “Living next to you is in some ways like sleeping with an elephant: No matter how friendly and even-tempered the beast, one is affected by every twitch and grunt.”

### Similarities

Notwithstanding the asymmetries, the United States and Canada have much in common. Both are former British colonies and have retained English as the dominant language. Both experienced settlement and exploration by the French. From their common British colonial heritage, they developed comparable democratic political traditions. Both are federations (of states or provinces), and both are representative democracies, with similar legal systems.

Not the least of the features they share is a 4200-mile (6720-kilometer) border, which until 2009 contained the longest sections of unfortified political boundary in the world. For years,

the Canadian border had just 1000 U.S. guards, while the Mexican border, which is half as long, had nearly 10,000 agents. In 2009, the Obama administration decided to equalize surveillance of the two borders for national security reasons. Where some rural residents once passed in and out of Canada and the United States unobserved many times in the course of a routine day, now there are drone aircraft with night-vision cameras and cloud-piercing radar scanning the landscape for smugglers, undocumented immigrants, and terrorists.

Canada and the United States share many other landscape similarities. Their cities and suburbs look much the same. The billboards that line their highways and freeways advertise the same brand names. Shopping malls and satellite business districts have followed suburbia into the countryside, encouraging comparable types of mass consumption and urban sprawl. The two countries also share similar patterns of ethnic diversity that developed in nearly identical stages of immigration from abroad.

### Democratic Systems of Government: Shared Ideals, Different Trajectories

Canada and the United States have similar democratic systems of government, but there are differences in the way power is divided between the federal government and provincial or state governments. There are also differences in the way the division of power has changed since each country became independent.

Both countries have a federal government in which a union of states (United States) or provinces (Canada) recognizes the sovereignty of a central authority, while states/provinces and local governments retain many governing powers. In both Canada and the United States, the federal government has an elected executive branch, elected legislatures, and an appointed judiciary. In Canada, the executive branch is more closely bound to follow the will of the legislature. The Canadian federal government has more and stronger powers (at least constitutionally) than does the U.S. federal government.

Over the years, both the Canadian and U.S. federal governments have moved away from the original intentions of their constitutions. Canada's initially strong federal government has become somewhat weaker, largely in response to demands by provinces, such as the French-speaking province of Québec (see Figure 2.47), for more autonomy over local affairs.

The more limited federal government that the United States had at its outset has expanded its powers. The U.S. federal government's original source of power was its mandate to regulate trade between states. Over time, this mandate has been interpreted ever more broadly. Now the U.S. federal government has a powerful effect on life even at the local level, primarily through its ability to dispense federal tax monies via such means as grants for school systems, federally assisted housing, military bases, drug and food regulation and enforcement, urban renewal, and the rebuilding of interstate highways. Money for these programs is withheld if state and local governments do not conform to federal standards. This practice has made some poorer states dependent on the federal government. However, it has also encouraged some state and local governments to enact more enlightened laws than they might have done otherwise. For example, in the 1960s the federal government promoted civil rights for African American citizens by requiring

states to end racial segregation in schools in order to receive federal support for their school systems.

### The Social Safety Net: Canadian and U.S. Approaches

The Canadian and U.S. governments differ significantly in the role they play in society. In Canada there is broad political support for a robust **social safety net**, the services provided by the government—such as welfare, unemployment benefits, and health care—that prevent people from falling into extreme poverty. In the United States there is much less support for these programs and a great deal of contention over nearly all efforts to strengthen the U.S. social safety net. Many in the United States are concerned that the cost of these programs would raise their taxes, which they prefer to keep low. Ironically, while U.S. citizens do pay slightly lower taxes than Canadians, they actually spend more money for their social safety net and generally get less in return than their neighbors to the north.

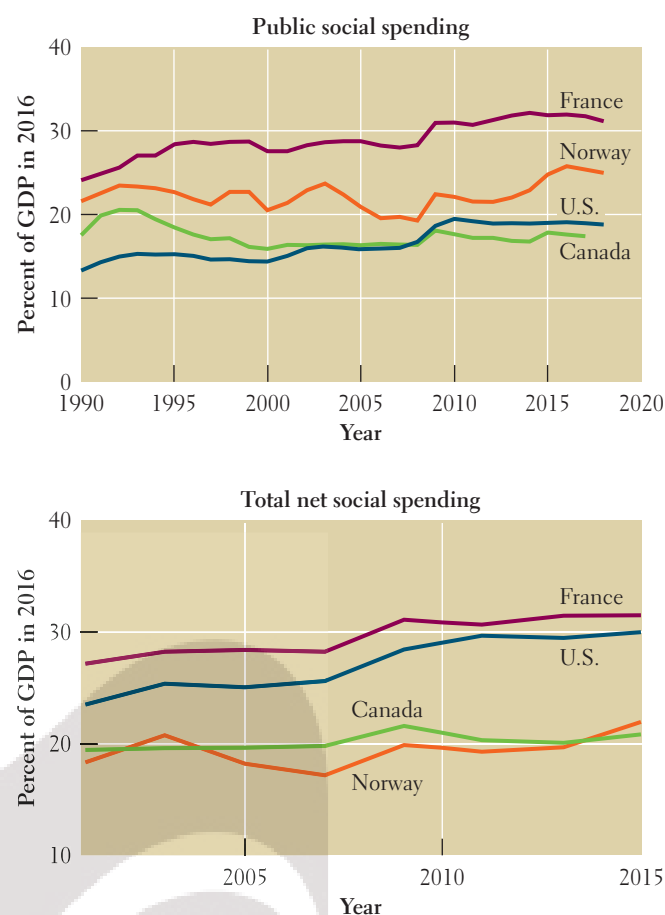
For many decades, Canada's government spent a higher percentage of its GDP than the United States on social programs. These programs have generally made the financial lives of Canadians more secure. Compared to Canada, the U.S. government provides much less of a social safety net: less generous income support to poor people (welfare), lower unemployment benefits, and health-care coverage for fewer people. Within the United States the prevailing political culture favors a less robust social safety net that makes possible lower taxes for businesses, corporations, and the wealthy. These groups are assumed to invest their profits in job-creating activities that contribute to the tax base, with further benefits *trickling down* to those most in need.

However, looking at government expenditures of tax dollars on the social safety net only provides part of the picture. If you include private social spending such as tax breaks given by the U.S. government to companies that provide health insurance benefits to their employees, which is how just under half of the United States gets its health insurance, the United States spends more of its GDP on its social safety net than any other country in the world except for France (Figure 2.27). Even when considering only government expenditures of tax dollars on the social safety net, the United States has still been spending more on social programs than Canada has since 2008, in part due to efforts to provide health insurance to more U.S. citizens.

**Two Health-Care Systems** The contrasts between health-care systems in the two countries are striking. Reformed in the 1970s, Canada's system uses tax dollars to cover 100 percent of the population. In the United States, health care has generally been private, tied to employment, and relatively expensive. Significant reform of this system began with the Affordable Care Act (ACA), which has been dubbed "Obamacare" after President Obama, who pushed for the legislation, and which reduced the percentage of people who have no health-care coverage from 18 percent to 11.4 percent.

Despite the ACA, the U.S. system is still much less efficient than Canada's. In 2017, the United States spent more per capita on health care

**social safety net** the services provided by the government—such as welfare, unemployment benefits, and health care—that prevent people from falling into extreme poverty



**Figure 2.27 The United States spends more on its social safety net and gets less.** The United States pays more for its social safety net than Canada, when considering only government expenditures of tax dollars. Including private social spending, the United States spends more of its GDP on its social safety net than any other country in the world except for France, despite a prevailing political culture that favors a less-robust social safety net. [Data from: <http://www.oecd.org/social/expenditure.htm>]

than any other industrialized country—U.S.\$10,209 per capita, for a total of 17.1 percent of its GDP per capita. Canada spent U.S.\$4826 per capita, or just 10.4 percent of its GDP per capita (GNI figures are not available)—yet Canada had better health outcomes, outranking the United States on most indicators of overall health, such as infant mortality, maternal mortality, and life expectancy (Table 2.1). Explanations for Canada's better health-care outcomes revolve around the simplicity of its system (a "single payer" national system versus many private insurers in the United States), lower salaries for its doctors, lower expenditures on pharmaceuticals, and its greater ability to deliver quality health care to low-income people.

### Gender in National Politics

Gender issues are increasingly in the spotlight in North American politics, where contradictions regarding the role of women in politics are becoming more widely acknowledged, and openness to LGBTQ candidates is growing. While women voters are a potent political force, outnumbering male voters in both Canada and the



**Table 2.1** Health-related indexes for Canada and the United States

| Country       | Public health expenditures as a percent of GDP in 2017 <sup>2</sup> | Percentage of population with no insurance, 2017 <sup>3</sup> | Deaths per 1000 people in 2017 <sup>1</sup> | Infant mortality per 1000 live births, 2017 <sup>1</sup> | Maternal mortality per 100,000 births, 2017 <sup>1</sup> | Life expectancy at birth (years), 2017 <sup>1</sup> | Public health expenditures per capita (PPP U.S.\$), 2017 <sup>2</sup> |
|---------------|---|---|---|--|--|---|---|
| Canada        | 10.4  | 0   | 8   | 4.3  | 11   | 82  | 4862  |
| United States | 17.1  | 8.8   | 8   | 5.8  | 28   | 79  | 10,209  |

<sup>1</sup> Population Reference Bureau, *2017 World Population Data Sheet*, at <http://www.prb.org/Publications/Datasheets>

<sup>2</sup> <https://data.oecd.org/healthres/health-spending.htm#indicator-chart>

<sup>3</sup> <https://www.census.gov/library/publications/2017/demo/p60-260.html>

United States, successful female politicians are much less numerous than male politicians. Of the 535 people in the U.S. Congress as of 2019, only 121 members, or 23 percent, were women. Gender equity was somewhat closer at the state level, where 28 percent of legislators were women. In Canada, women have had slightly more success. As of 2018, Canadian women constituted 28 percent of the House of Commons in Parliament and held 33 percent of provincial legislative seats. Neither country compares well to the world at large in that, as **Figure 2.28** shows, over the last decade other countries have added substantially more women to legislatures.

Things may be opening up slightly for women in executive political offices. In 2018, out of Canada's ten provinces and three territories, only one had a female executive. In 2018, the United States had 9 out of a possible 50 female governors. At the national level, Canada briefly had a female prime minister in 1993, and in 2016, Hillary Clinton won the popular vote against Donald Trump but ultimately lost the presidential election.

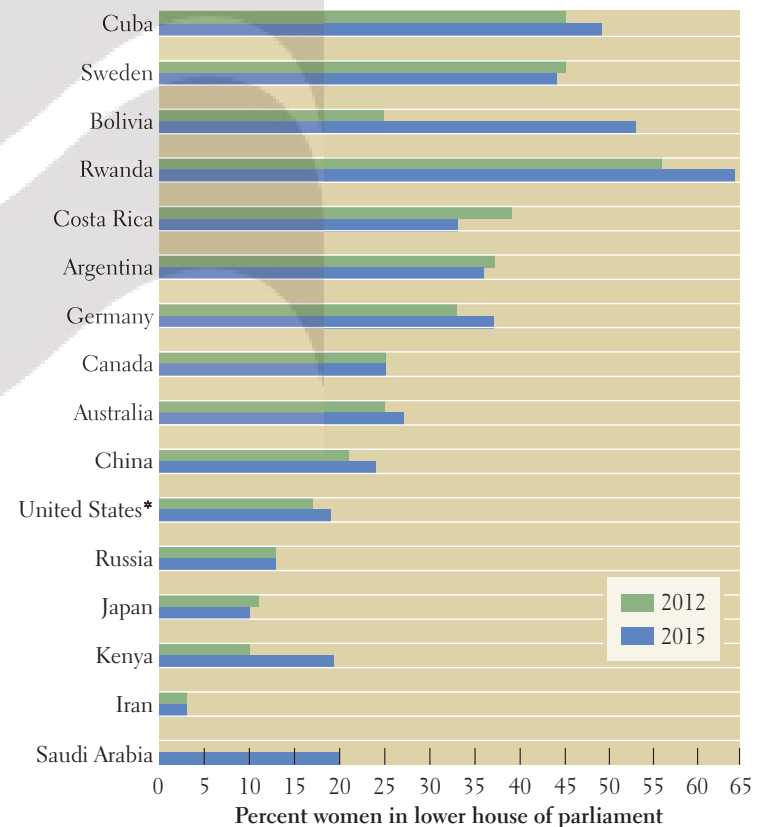
As more women are elected, research is showing that they govern differently. In the U.S. Congress, women are twice as likely to get new laws passed and more likely to focus on civil rights and civil liberties, domestic violence, health care, and equal pay between men and women. Women are also better at making sure federal tax dollars are spent in the districts they represent, securing on average about 10 percent more federal spending than men. However, women are no less likely than men to work with members of opposing political parties.

LGBTQ issues have come more strongly into focus in recent years. Canada legalized same-sex marriage in 2005, and its prime minister delivered a historic apology for discrimination against LGBTQ people in 2017. The United States legalized same-sex marriage in 2017. In both the United States and Canada, LGBTQ people account for less than 2 percent of Congress or Parliament, which is far below the 4.5 percent of the population that identifies as LGBTQ in surveys, or the probably much larger population that remains "closeted."

## DRUGS AND POLITICS IN NORTH AMERICA

Drugs have had a significant influence on society in North America, as drug use is relatively high in this region on a per capita basis. The United States is the world's largest importer of illegal drugs. Its trade in illegal drugs is worth U.S.\$400 billion to \$500 billion per year, equal to roughly 2.6 percent of the U.S. economy or roughly twice the amount of the entire agriculture sector.

Governmental responses to the illegal drug trade highlight inequalities in wealth and power, with hundreds of thousands of poor people sentenced to years in jail, often for possessing small amounts of illegal drugs, while wealthier drug users are usually placed in drug treatment programs and sentenced to community service. Meanwhile the four largest banks in North America—JPMorgan Chase, Bank of America, Wells Fargo, and Citigroup—have all recently been caught helping Mexican and Colombian drug cartels to conceal hundreds of billions of dollars from U.S. law enforcement. These are highly illegal activities at the heart of



\* Percentage for the entire U.S. Congress is used, which has 100 senators (20 are women) and 435 congresspeople (77 are women)

**Figure 2.28** Country comparison of women in national legislatures, 2012 and 2015. [Data from: <http://unstats.un.org/unsd/gender/chapter5/chapter5.html>]

the drug economy, for which the banks have merely been fined. In the 1980s the U.S. government was itself involved in the illegal drug trade, with U.S. Senate investigations revealing that the CIA cooperated with cocaine traffickers as part of its effort to fund a rebellion against the Nicaraguan government.

Illegal drugs are available almost everywhere and drug overdose is the leading cause of accidental death in the United States, topping gun violence and even motor vehicle accidents, at more than 72,000 deaths per year. Mexico has been plagued by decades of violence associated with the vast trade in illegal drugs destined for North America.

In recent years, there has been an escalation in prescription drug abuse, primarily of opioid-based painkillers, such as fentanyl and oxycodone, which are responsible for more than two-thirds of all deaths from overdose in the United States. Heroin has also surged in popularity as policies that reduce the availability of prescription painkillers have taken effect. Methamphetamine (meth) is also a growing concern, as it is highly addictive and extremely toxic, and can be made from household chemicals. Drug cartels in Mexico have recently shifted over to heroin and meth after decades of declining use of cocaine, and heroin and meth addiction is often severe along the major transportation routes that connect northern Mexico with North American cities.

### The War on Drugs

A *war on drugs* was declared in the United States under the Nixon administration in 1971, with the goal of reducing the drug trade via three tactics discussed below: *eradication*, *interdiction*, and *incarceration*. Eradication involves the destruction of drug crops, interdiction intercepts shipments of drugs before they reach users, and incarceration imprisons drug offenders. These policies have been implemented in Canada as well, though with a generally less strict approach. The war on drugs has cost over a trillion dollars since 1971 and yet since then the drug trade has become more widespread, with drugs that are cheaper and more easily obtained. Currently the United States has higher rates of drug use relative to countries such as Mexico, the Czech Republic, the Netherlands, Portugal, and Uruguay that have either legalized most types of drugs or decriminalized them, meaning that an offense is treated like a parking violation.

Eradication is often accomplished by burning, as is often done with drugs found in North America, or else aerial spraying of live drug crops with herbicides, as is often done in U.S.-backed anti-drug operations in source countries, such as Mexico or Colombia. Herbicide spraying has not reduced the amount of land under drug cultivation or reduced harvests because the profits from growing drug crops are simply too high. However, spraying has damaged fragile environments, hurt many nondrug crops, and endangered the health of farmers.

Interdiction can yield seemingly spectacular drug busts, but the amounts of drugs that are successfully intercepted are too small to discourage smugglers, given the enormous profits they make from the many shipments that do get through.

Incarceration has done relatively little to reduce drug use or decrease the flow of drugs into the United States, but it has played a major role in giving the United States the largest prison population in the world. With 4 percent of the world's population, the United States has almost a quarter of the world's prisoners, more

than China and India combined (which together account for over a third of the world's population). Half of federal prisoners and around 16 percent of state prisoners are drug offenders.

Racism influences incarceration rates in the United States, where minorities are jailed more often and for longer terms than whites. Roughly 68 percent of U.S. drug users are white, 14 percent are African American, and 16 percent are Latino. However, African Americans make up 39 percent of those incarcerated for drugs, and Latinos, 29 percent. Studies suggest several important sources of racial bias in drug-related incarceration. Federal drug laws impose far longer prison terms for crack cocaine, which is more common in low-income minority communities, than for powder cocaine, which is more common in higher-income white communities.

Local police departments also target minority neighborhoods for drug law enforcement disproportionately. In part this is because their antidrug funding from the federal government is based on the numbers of people they arrest on drug offenses, and the quickest and cheapest way for them to raise those numbers is to focus on poor and generally minority neighborhoods, where drug dealing and use are often more visible on the street relative to higher-income majority-white neighborhoods, where drug use usually happens behind closed doors.

Incarceration has had a particularly profound effect on African American communities, where 1 in 9 children has a parent in prison. In 2014 California passed a law aimed at reducing racial discrimination in drug laws by equalizing prison terms for crack cocaine and powder cocaine.

### New Approaches to Managing Drugs

Because of the ineffectiveness and high cost of the war on drugs, new approaches are being tried. Drug courts, which supervise treatment for nonviolent drug addicts instead of sending them to jail, are a big component of this. Incarcerating a drug user costs around U.S.\$25,000 per year, and most users return to drugs upon their release. In contrast, drug courts get users off drugs about 60 percent of the time for a cost of U.S.\$900–\$3500 per person. Begun in the late 1980s in Miami in the midst of a crack cocaine epidemic, drug courts have since spread to every state, saving billions as a result. For example, Texas, a strong proponent of incarceration and home to the largest prison population in the United States (larger than the prison population of the United Kingdom, France, and Germany combined), has been able to close three of its bigger prisons since implementing drug courts. While significantly more funding has been given to drug treatment in recent years, the United States still spends more money on eradication, interdiction, and incarceration than it does on treatment.

The legalization of drugs is another tactic. In North America most of the focus has been on legalizing marijuana, though other countries, such as neighboring Mexico, have decriminalized cocaine, heroin, and marijuana. Roughly half of North America's population currently has access to legal marijuana for medicinal use. The use of marijuana for medical reasons in North America was documented as early as 1764, and recreational and medicinal use spread throughout much of urban North America during the nineteenth century. Efforts to regulate marijuana were initiated only in the early twentieth century, when campaigns to outlaw its use in the United States associated marijuana with “dangerous” Mexican immigrants. Arrests and incarceration for possessing and



selling marijuana did not become common until the 1970s. Use surged during the Vietnam War, when many soldiers first encountered it in Southeast Asia, not far from South Asia, where marijuana was first domesticated.

Marijuana use is on the rise in North America, where in 2018 Canada became the second country in the world, after Uruguay, to legalize marijuana for recreational use. The highest rates of use are in northern Canada, the west coast, and New England. These are all areas where marijuana is legal for either recreational or medical use.

In the United States, over 60 percent of the population supports the legalization of marijuana for recreational use. Arguments in favor tend to focus on the financial benefits of legalizing marijuana, noting the billions of dollars that could be saved in law enforcement costs and earned by taxing marijuana at rates similar to those on alcohol and tobacco. Some studies suggest that marijuana legalization is reducing rates of violent crime, possibly by freeing up police to pursue these crimes, or as a side effect of reduced alcohol consumption in areas that have legalized.

Opponents of marijuana legalization point to research showing that marijuana has some adverse effects, such as an increased risk of cardiovascular disease, and that it can impede concentration and reduce motivation to reach or set goals. Marijuana remains illegal under federal U.S. law, and around one-third of incarcerated federal drug offenders are serving prison sentences for marijuana-related offenses.

### CHECK YOUR UNDERSTANDING

1. What are the major similarities and differences between Canada and the United States in the roles each country's government plays domestically and internationally?
2. What ideal does the United States officially promote about its foreign policy, and how does this influence the global distribution of U.S. spending on foreign aid and military assistance?
3. Does Canada or the United States have a more robust social safety net? Which country spends more on their social safety net?
4. How does the percentage of elected female politicians reflect the percentage of women in the general population of the United States and Canada?
5. What are the three main strategies of the war on drugs and two more recent alternatives?



## URBANIZATION

**2.6** Explain how North America's urban areas have changed since World War II, and the factors that have driven these changes.

Close to 80 percent of North Americans live in **metropolitan areas**—cities of 50,000 or more, plus their surrounding suburbs and towns. This is a reflection of the dominance of the North American economy by activities located in cities, especially larger ones. The largest North American city, greater New York, has a GDP roughly equal to all of Canada. Within the United States, the six largest metro areas (New York, Los Angeles, Chicago,

Washington, Dallas, and Houston) account for one-quarter of GDP, and the 23 largest cities have a combined GDP equal to the rest of the country. This urban economic dominance is typical of most world regions, as cities are generally where most service sector, knowledge economy, and manufacturing jobs are located. Rural areas generally depend on “extractive” primary sector industries, such as agriculture and mining, which are much less profitable and employ fewer people.

North America is somewhat unique in that around half of North Americans live in car-dependent suburbs that were built after World War II. Only in Australia do suburbs dominate like they do in North America, where urban life bears little resemblance to that in the central cities of the past. North America's urban areas are now much less densely populated and more energy intensive, having expanded much faster than their populations have increased numerically.

Urban life has changed dramatically since World War II. In the nineteenth and early twentieth centuries, cities in Canada and the United States consisted of dense inner cores and less-dense urban peripheries that graded quickly into farmland. Starting in the early 1900s, central cities began losing population and investment, while urban peripheries—the **suburbs**—began growing (Figure 2.29). Workers were drawn by the opportunity to raise their families in single-family homes in secure and pleasant surroundings on lots large enough for recreation. Most continued to work in the city, traveling to and from on streetcars.

After World War II, suburban growth dramatically accelerated as cars became affordable to more people (Figure 2.30). Especially in the United States, this shift brought declining interest in publicly funded, non-car-based forms of transportation for expanding urban areas. Change was hastened by a consortium of automobile manufacturers, tire companies, and oil companies that purchased, dismantled, and replaced many urban streetcars and light-rail trains with bus systems.

In the United States, suburban growth was also encouraged by the elaborate, publicly funded Interstate Highway System, a network of free, high-speed roads that passed through most cities, providing easy access to surrounding land along the interstate. Canada, with a less extensive interstate highway system and slightly fewer people who could afford cars, had less suburban growth.

The U.S. 2010 census data indicates that 51 percent of people live in suburbs, 32 percent are urbanites, and 17 percent live in rural areas. The 2011 census data for Canada indicates that 39 percent of Canadians live in suburbs, 41 percent are urbanites, and 20 percent are rural. Both urban and suburban populations are considered urban in Figure 2.29 and in similar maps in other chapters.

As North American suburbs grew and spread out, nearby cities often coalesced into a single urban mass, or **conurbation**. The largest conurbation in North America, sometimes called a *megalopolis*, is the 500-mile (800-kilometer) band of urbanized area stretching from Boston through New York City, Philadelphia, and Baltimore, to south

**metropolitan areas** cities of 50,000 or more and their surrounding suburbs and towns

**suburbs** populated areas along the peripheries of cities

**conurbation** an area formed when several cities expand so that their edges meet and coalesce

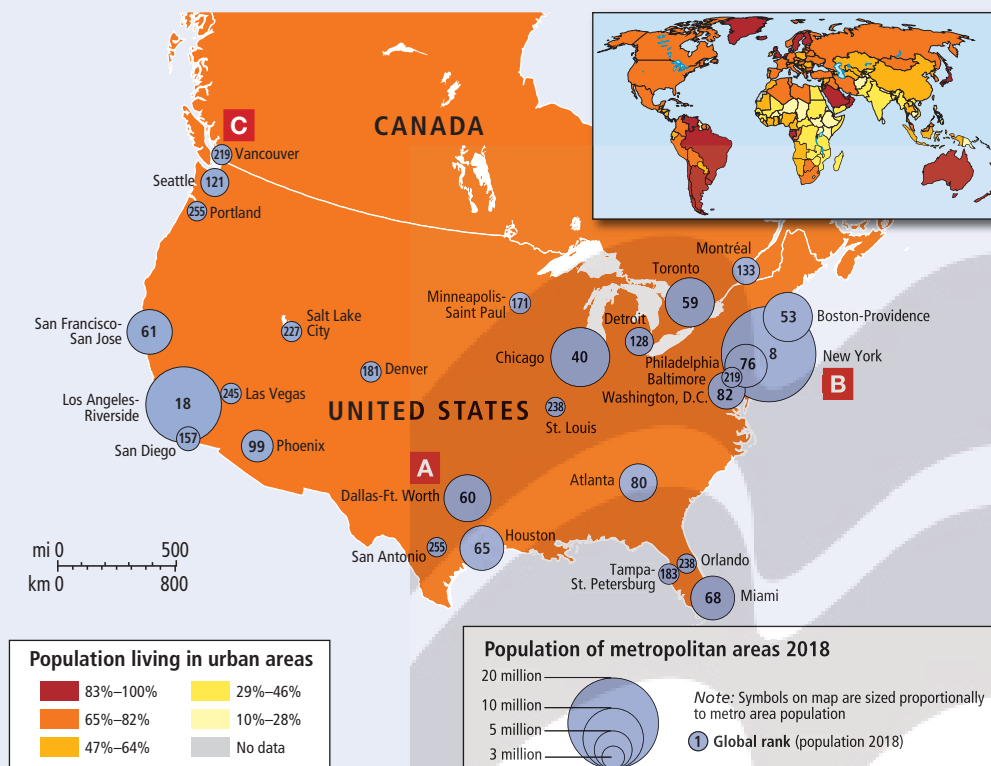
## PHOTO ESSAY

### 2.29 Urbanization in North America

North America is very urbanized, with 81 percent of the population living in cities. Cities dominate the North American economy, and some of the wealthiest cities in the world are located here. However, only a few have high levels of “livability” compared to cities in Europe or Oceania. About half of all North Americans live in suburbs with sprawling development patterns that make people dependent on their automobiles. These residents are much greater consumers of energy than those in regions with more densely populated cities that allow for more walking and public transportation. [Data from: <http://www.demographia.com/db-worldua.pdf>; and 2018 World Population Data Sheet, Population Reference Bureau, [http://www.prb.org/pdf15/2015-world-population-data-sheet\\_eng.pdf](http://www.prb.org/pdf15/2015-world-population-data-sheet_eng.pdf)]

#### THINKING GEOGRAPHICALLY

- A** What aspects of growth in Dallas are typical of U.S. cities? What sets it apart?
- B** What factors reduce livability in New York?
- C** Is Vancouver’s growth pattern typical for North America?



**A** The Alan Ross Texas Freedom parade takes place in Dallas, home to the sixth-largest LGBTQ community in the United States. Dallas has added more population than any city in the region in recent years, and is now the fourth-largest metro area in the United States. It is among the least-dense and most-sprawling cities in North America and depends almost entirely on cars for transportation. Dallas is generally in the lower-middle ranking of livability for North America. [MICHAEL MATHES/AFP/Getty Images]



**B** New York City is the second-wealthiest city in the world (after Tokyo) and is North America’s financial capital and largest city. Known for its extensive mass transit system (shown here), high population density, and world-class music and arts scene, the high cost of living has driven away almost 900,000 residents since 2010. In terms of livability, New York ranks toward the middle for the region. [Mario Tama/Getty Images]

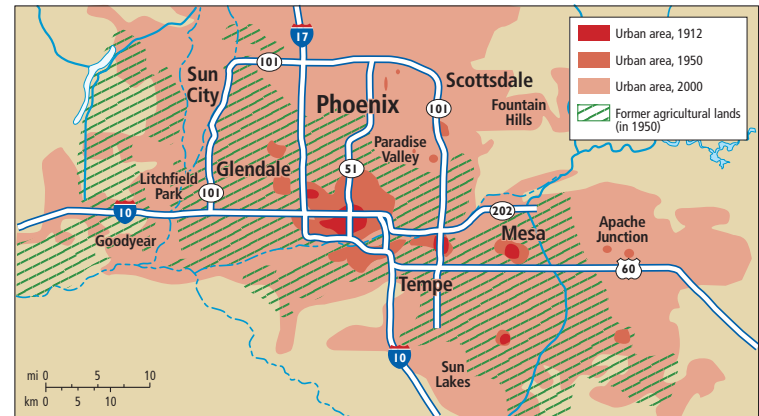


**C** Vancouver, Canada, is considered one of the best places to live in North America. It is a leader in controlling sprawl and in developing and maintaining its urban core. Over the past 10 years, the use of public transportation has risen by 50 percent, while the use of cars has fallen by 30 percent. [Christopher Morris—Corbis/Getty Images]



**Figure 2.30** Urban sprawl in Phoenix, Arizona.

**(A)** Phoenix grew rapidly between 1950 and 2000, resulting in a demand for housing. The photo is of Sun City, a new, car-oriented suburb designed for senior citizens, located about 30 miles from Phoenix's center. [Emory Kristof/National Geographic/Getty Images]



**(B)** This map shows the original urban settlement and how it has grown from 1912 to the present. A preference for single-family homes means that the city is sprawling into the surrounding desert rather than expanding vertically into high-rise apartments.

of Washington, DC. Other large conurbations in North America include the San Francisco Bay Area, Los Angeles and its environs, the region around Chicago, and the stretch of urban development from Seattle–Tacoma to Vancouver, British Columbia.

This pattern of *urban sprawl* requires residents to drive automobiles to complete most daily activities such as grocery shopping and commuting to work. Two major side effects of the dependence on vehicles that comes with urban sprawl are air pollution and emission of the greenhouse gases that contribute to climate change. Another important environmental consequence is the habitat loss that results when suburban development expands into farmland, forests, grasslands, and deserts.

### FARMLAND AND URBAN SPRAWL

Urban sprawl drives farmers from land that is located close to urban areas, because farmland on the urban fringe is very attractive to real estate developers. The land is cheap compared to urban land, and it is easy to build roads and houses on since farms are generally flat and already cleared. As farmland is turned into suburban housing, property taxes go up and surrounding farmers who can no longer afford to keep their land sell it to housing developers. In North America each year, 2 million acres of agricultural and forest lands make way for urban sprawl.

**VIGNETTE** For Canada's Aboriginal peoples, the chance to indulge in the extravagance of urban sprawl is viewed positively. The Tsawwassen are one of 630 native groups that are negotiating with the Canadian government to gain full control over their ancestral territories. The land they recently received by a treaty lies 20 miles south of Vancouver, near the Strait of St. George. Eager to finally enjoy some of the fruits of development, they are planning a 2-million-square-foot "big box" and indoor shopping mall in the midst of what has been rural farmland. The surrounding communities, which had previously been able to shield their village-like settlements against urban sprawl, feel that there are enough shopping opportunities already. The Tsawwassen see the mall as an overdue chance for the prosperity that their neighbors already enjoy. ■

### SMART GROWTH AND LIVABILITY

In recent years the pace of urban sprawl has slowed as center cities have become more livable and drawn in more people. The term *smart growth* has been coined for a range of policies that shift urban growth away from car-dependent suburbs toward compact, walkable urban centers with mixed commercial and residential development and access to transit. *Livability* relates to factors that lead to a higher quality of life in urban settings, such as safety, good schools, affordable housing, quality health care, numerous and well-maintained parks that offer recreational opportunities, and well-developed public transportation systems. While smart growth and the shift toward livability are just starting to take hold throughout North America, a few cities, such as Vancouver, British Columbia, and Portland, Oregon, are much further along in implementing these principles (see Figure 2.29C).

Some older cities are enjoying a renaissance as people move back to them in search of more livability. Places like New York City, which developed long before the term *smart growth* became popular, are arguably the furthest along in crucial aspects of smart growth, given their high density and widespread use of mass transit (see Figure 2.29B). However, the high cost of living in these places can reduce their livability.

It may be a while before smart growth and livability make much of an impact in some of North America's fastest-growing large cities, such as Dallas (see Figure 2.29A), Atlanta, and Phoenix, where in recent decades car-dependent suburbs have spread out over enormous areas. Not surprisingly, none of these cities ranks high on livability indexes, with car dependence and rapid growth resulting in massive traffic jams, long commutes, and declining air quality.

Inner-city decay is another impact of sprawl on livability. This is especially true in the United States, where many inner cities are dotted with large tracts of abandoned former industrial land and neighborhoods debilitated by persistent poverty and loss of jobs. Old industrial sites that once held factories or rail yards



**Figure 2.31 The Greening of Detroit** Reynaldo Medina weeds squash plants near downtown Detroit. Once the center of North America's auto industry, Detroit began to decline in the 1950s as factories were moved to the city's suburbs and to other parts of the United States. Competition from car makers in Japan forced companies such as Ford and General Motors to cut thousands of jobs, causing the city's population to shrink by two-thirds over the next 70 years. [Fabrizio Constantini/Bloomberg via Getty Images]

are called **brownfields**. Because they are often contaminated with chemicals and covered with obsolete structures, they can be very expensive to redevelop for other uses. Nevertheless, many of these sites are being redeveloped, at times on a large scale, but also on a small scale and more informally (**Figure 2.31**).

Today the depressing decay of a now much smaller Detroit is beginning to sprout with greenery and flowers as inner-city dwellers grow gardens on urban plots once occupied by houses that have since burned down. These green oases draw neighbors together and reconnect people with natural cycles. Children learn that food is something one can grow, not just buy.

## HOUSING SEGREGATION, REDLINING, AND GENTRIFICATION

**brownfields** old industrial sites whose degraded conditions pose obstacles to redevelopment

**housing segregation** a common phenomenon in cities, in which ethnic or racial or economic classes live in separate neighborhoods and the segregation is maintained by discriminatory customs, not law

**redlining** The practice used by banks of drawing red lines on urban maps to show where they will not approve loans for home buyers regardless of qualifications

**gentrification** the renovation of old urban districts by affluent investors, a process that often displaces poorer residents

Also left behind in the inner cities are people, many of whom were drawn in generations ago by the promise of jobs that have since moved out to the suburbs or overseas. Often the majority of the population in these inner cities is a mixture of African Americans, Asian Americans, Latinos, and new immigrants. Many are struggling to revitalize their communities, where a lot of the people are poor and in need of jobs and social services, such as health care and education, that have moved to the suburbs.

A major feature of many U.S. cities is **housing segregation**, in which impoverished minority groups are denied fair access to

housing by a variety of practices instituted by banks, landlords, and local governments. Banks in many U.S. cities have a history of denying mortgage loans on homes in the suburbs to minority borrowers even when they can afford them, and also of **redlining**—a practice that involves denying mortgages in minority neighborhoods in inner cities. The effect has been that many minorities have been shut out of homeownership and can only rent homes from landlords in poor, inner-city neighborhoods. There, rental units are often in a state of disrepair because landlords can't get loans to finance renovation. Landlords in suburbs will often refuse to rent to minorities, which allows landlords in inner cities to increase their rental prices. Local governments often concentrate low-income rental housing, subsidized by the federal government, in poor, inner-city neighborhoods where minorities are in the majority.

Legislation prohibiting redlining and other practices that create housing segregation has helped some inner-city minority communities get more access to mortgages and enabled more minority households to move to more affluent suburbs. However, similar but less formal practices still exist and many U.S. cities remain highly segregated, with whites dominating affluent suburban areas and minorities dominating poorer inner cities and their immediate suburbs. Canadian cities have had much less housing segregation, as redlining there focused more on unregulated suburban development.

The new emphasis on smart growth and livability has often perpetuated housing segregation in the United States through the **gentrification** of old inner-city neighborhoods. When affluent, usually white, people invest substantial sums of money in renovating old houses and buildings, poor, often minority, inner-city residents can be displaced in the process. The effect of gentrification on the displaced poor appears to be somewhat less harsh in Canada than in the United States, primarily because Canada's stronger social safety net better ensures social services, housing, and help with housing maintenance.

### CHECK YOUR UNDERSTANDING

1. How have North America's urban areas changed since World War II?
2. Why has Canada had less suburban growth than the United States?
3. How has urban sprawl impacted farmland on the urban fringe?
4. What is *smart growth*?
5. How has redlining contributed to housing segregation in the United States?

## POPULATION, GENDER, AND CULTURE

**2.7** Identify how the changing role of women in society has contributed to the aging of North American populations.

**2.8** Describe how North America's population distribution is changing.

**2.9** Explain how the increase in migration from Middle and South America and parts of Asia is changing the culture and politics of North America.



As the population of this region ages, due in part to changing gender roles, it is also becoming more diverse, largely from immigration. Many are struggling to adapt to the reality that in the next 20 years, people of European descent will no longer be a majority of the population in North America. This will bring a host of cultural and political changes likely to challenge how racial and ethnic minorities have been treated in this region.

## GENDER AND FERTILITY

North America is well along the demographic transition, with the number of children the average woman will have in her lifetime (also known as the *fertility rate*) declining dramatically since the early 1800s. This has happened in response to higher human development: increasing economic development, improved health care, urbanization, and more women participating in the workforce. Greater gender equality has been a major factor in the decline of North American birth rates as more women delay childbearing to pursue education and careers (see [Figure 2.32](#)).

All of these factors are connected in how they influence fertility. For example, social scientists have documented that increasing economic development is associated with decreased fertility. It is also usually associated with more women participating in the workforce, higher rates of urbanization, and improved health care. Similarly, urbanization is also associated with more women in the workforce, as families that move to the city are more likely to need the cash income that an adult woman who works outside the home can provide. This in turn is associated with lower fertility because women who have careers tend to delay childbearing. With regard to health care, improvements in the quality of health care and better access to medical professionals and medicines tend to lower the fertility rate as families choose to have fewer children because more will survive into adulthood. This choice is made easier with better access to birth control. All of these factors have come together to influence both gender and fertility in North America.

By the early 1800s, small numbers of North American women were starting to work in urban factories, where they had better access to health care. As more women chose this path, the fertility rate fell steadily from a high of seven births per woman in 1800 to three births per woman in the 1920s. After the rapid rise in fertility following World War II, there was a sharp fertility decline as North American women worked more and gained access to birth control via “the pill,” which became widespread in the 1960s. Since a low in the 1970s, North American fertility rates have remained more or less flat, at a level just below replacement level, contributing to an overall aging of the population.

## AGING IN NORTH AMERICA

The aging of the region’s population relates both to longer life expectancy, which increases the number of older people, and to a declining fertility rate, which decreases the number of younger people ([Figure 2.33](#)). During the twentieth century, the number of older North Americans grew rapidly. In 1900, 1 in 25 individuals was over the age of 65; by 2017, the number was 1 in 7. By 2050, when most of the current readers of this book will be over 50, it is likely that 1 in 5 North Americans will be elderly.

## Dilemmas of Aging

Aging populations in developed regions like North America present some as-yet unresolved dilemmas. On the one hand, it is widely agreed that globally, population growth should be reduced to lessen the environmental impact of human life on Earth, especially in countries like the United States and Canada that consume a lot of resources. On the other hand, slower population growth means that populations will age and there will be fewer working-age people to keep economies growing.

Concerns about the financial burdens imposed by aging populations have inspired the United States to raise its legal retirement age, which determines the age at which people can start receiving “social security” retirement income from the government, from 65 to 67. Supporters of these policies argue that if those over 65 remain self-supporting longer, there will be more working people spending their incomes and creating jobs by so doing. Critics of this strategy point out that it disproportionately hurts lower-income people, who have lower life expectancies and tend to retire earlier than wealthier people. Canada’s government made this argument in 2016 when it reversed its plans to raise its legal retirement age from 65 to 67, also arguing that there are better ways of encouraging economic growth than forcing people to work longer.

Eventually most elderly people’s living arrangements have to change as physical frailty increases and incomes shrink ([Figure 2.34](#)). North Americans of all ages are choosing to live alone more than they did in the past, and this can be problematic for the elderly as their need for physical assistance increases. One solution to the problem of providing affordable living arrangements for the elderly is *cobousing*, where residents live in housing designed to promote social interactions, and where elderly people look after each other with the aid of a small paid staff.

## POPULATION DISTRIBUTION

The population map of North America ([Figure 2.35](#)) shows the uneven distribution of the more than 362 million people who live here. Canadians make up just over one-tenth (37 million) of North America’s population. They live primarily in southeastern Canada, close to the border with the United States. The population of the United States is more than 325 million, with many people moving from the Old Economic Core into other regions of the country that are now growing much faster. The U.S. Census Bureau predicts that the Northeast and Middle West will grow more slowly than the South and West. Canada’s national statistics agency predicts a similar pattern of western and southward movement of population.

## The Geography of Population Change in North America

North Americans are among the most mobile people in the world. Every year, almost one-fifth of the U.S. population and two-fifths of Canada’s population relocate. Some people are changing jobs and moving to cities; others are attending school or retiring to a warmer climate or a smaller city or town; and others are merely moving across town or to the suburbs or the countryside. Still other people are arriving from outside the region as immigrants.

In many farm towns and rural areas in the *Middle West*, or *Midwest* (the large central farming region of North America), populations are shrinking. As family farms are consolidated under

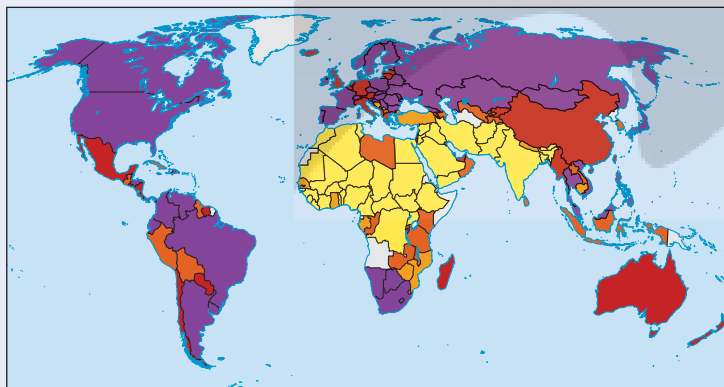
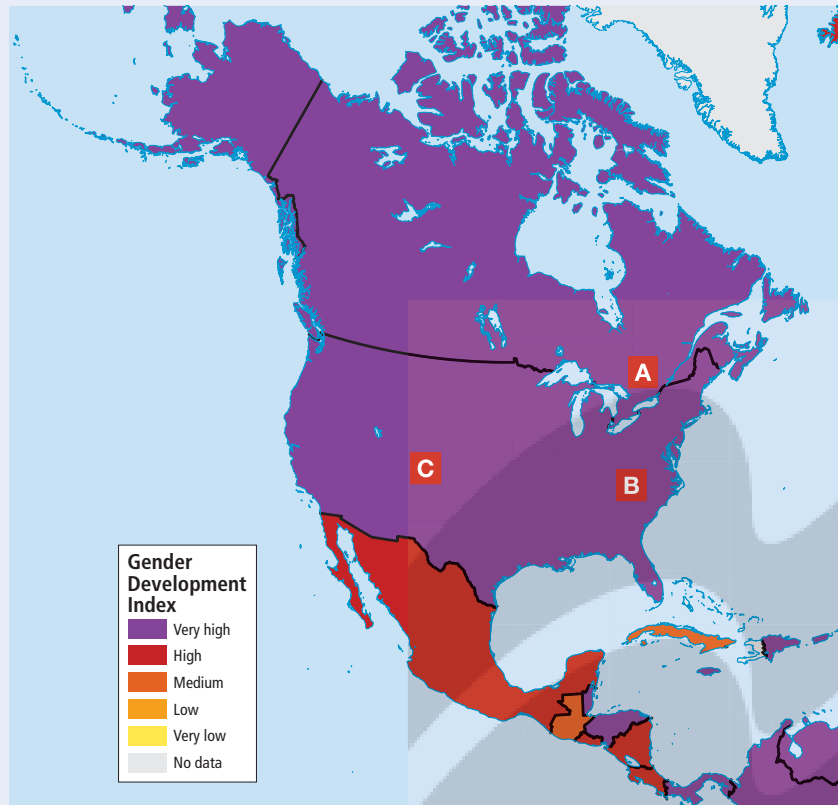
## PHOTO ESSAY

### 2.32 Population, Gender, and Culture in North America

The Gender Development Index (GDI) measures disparities in HDI by gender. Greater gender equality has been a factor in the decline of North American birth rates as more women delay childbearing to pursue education and careers. Declining birth rates play a role in the aging of North American populations, which may slow economic growth.

#### THINKING GEOGRAPHICALLY

- A** What is driving lower fertility rates in North America?
- B** Which problems does cohousing potentially address?
- C** How much of the North American workforce is female?



▲ To create the GDI, HDI values are estimated separately for women and men, and the ratio of these two values is the GDI. The closer the ratio is to 1, the smaller the gap between women and men. The map shows that the United States and Canada have fairly equitable human development across genders, relative to most countries; however, Australia and North and West Europe are doing better at equalizing pay and opportunities for men and women.



**A** A family with 12 children in York, Canada. Average family size, including parents, in Canada has fallen from over 5 in 1900 to around 2.5 today. [Toronto Star Archives/Getty Images]

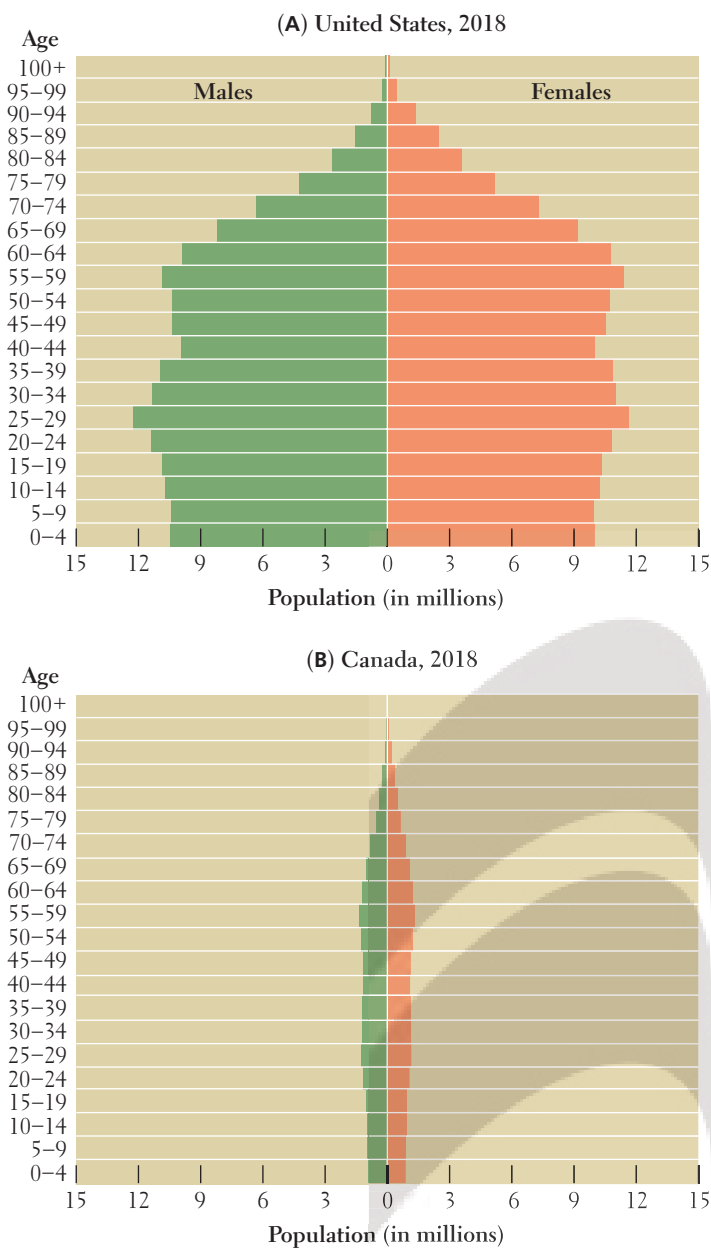


**B** Elderly residents do chores at a cohousing community in northern Virginia. Cohousing, which is designed to promote social interactions, is an affordable way for elderly and retired people to live in a social setting. [Jahi Chikwendiu/The Washington Post via Getty Images]



**C** Health care is one of the most popular employment areas for women in North America. Women frequently are in lower-paid health-care jobs such as nursing, while higher-paid jobs, such as surgery, tend to be male-dominated. [John Greim/LightRocket via Getty Images]

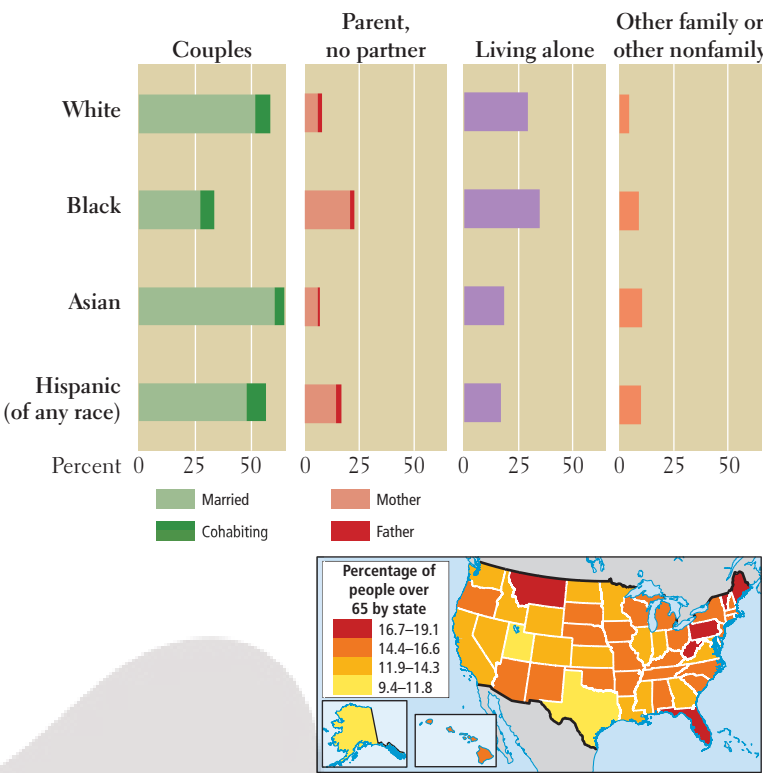




**Figure 2.33** Population pyramids for the United States and Canada, 2015. The “baby boomers” (those born between 1947 and 1964) constitute the largest age group in North America, as indicated by the wider middle portion of these population pyramids. [Data from: International Data Base, U.S. Census Bureau, at <https://www.census.gov/data-tools/demo/idb/region.php?N=%20Results%20&T=12&A=separate&RT=0&Y=2018&R=-1&C=CA> and <https://www.census.gov/data-tools/demo/idb/region.php?N=%20Results%20&T=12&A=separate&RT=0&Y=2018&R=-1&C=US>]

corporate ownership, labor needs are decreasing and young people are choosing better-paying careers in cities. Midwestern cities are growing only modestly but are becoming more ethnically diverse, with rising populations of Latinos and Asians in places such as Indianapolis, St. Louis, and Chicago.

In the western mountainous interior, historically settlement has been light (see Figure 2.35) due to the lack of rain, rugged topography, and, in northern or high-altitude zones, a growing season too short to sustain agriculture. There are some population clusters in irrigated



**Figure 2.34** Living arrangements of U.S. people age 65 and over by ethnicity and type of companion, 2015. [Data from: <https://www.census.gov/hhes/families/files/graphics/HH-7a.pdf>, and <http://www.census.gov/quickfacts/map/AGE775214/00>]

agricultural areas, such as in the Utah Valley, near rich mineral deposits or resort areas. The gambling economy and frenetic construction activity generated by real estate speculation account for several knots of dense population at the southern end of the region.

Along the Pacific coast, a band of population centers stretches north from San Diego to Vancouver (see Figure 2.29A) and includes Los Angeles, San Francisco, Portland, and Seattle. These are all port cities engaged in trade around the **Pacific Rim** (all the countries that border the Pacific Ocean). Over the past several decades, these North American cities have become centers of technological innovation with many new jobs that have attracted larger populations.

The rate of natural increase in North America (0.4 percent per year) is low, less than half the rate of the rest of the Americas (1.2 percent). Still, North Americans are adding to their numbers fast enough through births and immigration that the population could reach 401 million by 2030 and 445 million by 2050.

**Pacific Rim** a term that refers to all the countries that border the Pacific Ocean

CHECK YOUR UNDERSTANDING

1. How has the changing role of women in society contributed to the aging of North American populations?
2. What are some economic implications of the aging of North America?
3. In what ways is North America’s population distribution changing?



Figure 2.35 Population density in North America.

CULTURAL ISSUES

North America is increasingly diverse, with new immigrants from across the globe adding to a dominant culture that has European roots.

Immigration and Diversity

Immigration has played a central role in populating both the United States and Canada. Since the 1700s, a majority of people in North America have descended primarily from European immigrants, but also from enslaved Africans. However, in this highly globalized region most new immigration is coming from East and South Asia and Middle and South America. Migration from these regions promises to make North America a region where people of

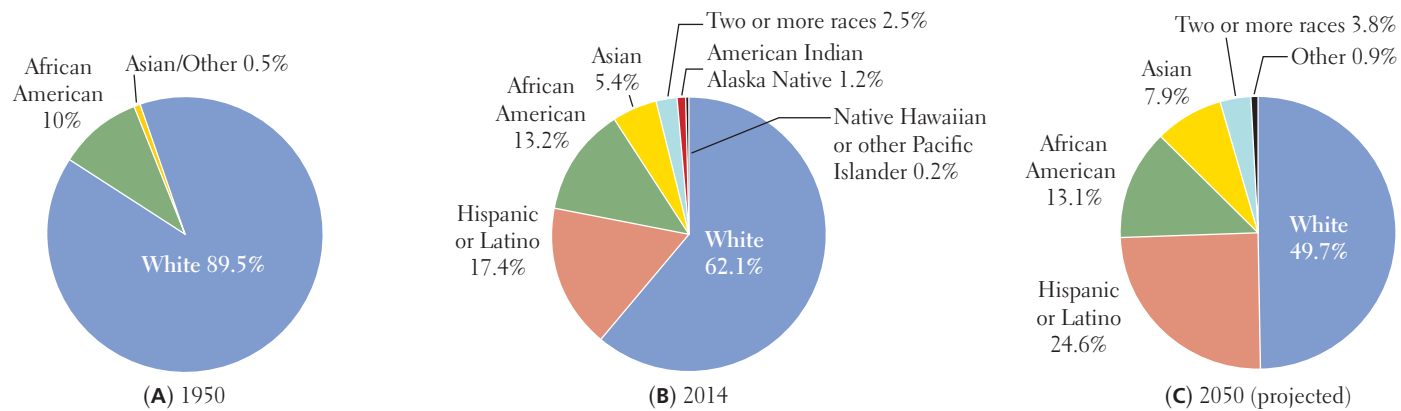
non-European or mixed descent will become the majority within a few decades (Figure 2.36).

Most major North American cities are already characterized by ethnic diversity, with the once numerically dominant Caucasian population now a minority in many big cities. However, most large cities are still highly segregated at the neighborhood level, with different ethnic groups living mostly among themselves. There are many methods of measuring urban segregation, but generally speaking the least-segregated large cities are on the West Coast of North America and the most segregated are in the Old Economic Core and the South.

In the United States, the spatial pattern of immigration is also changing. For decades, immigrants settled mainly in coastal or border states such as New York, Florida, Texas, or California. However, since

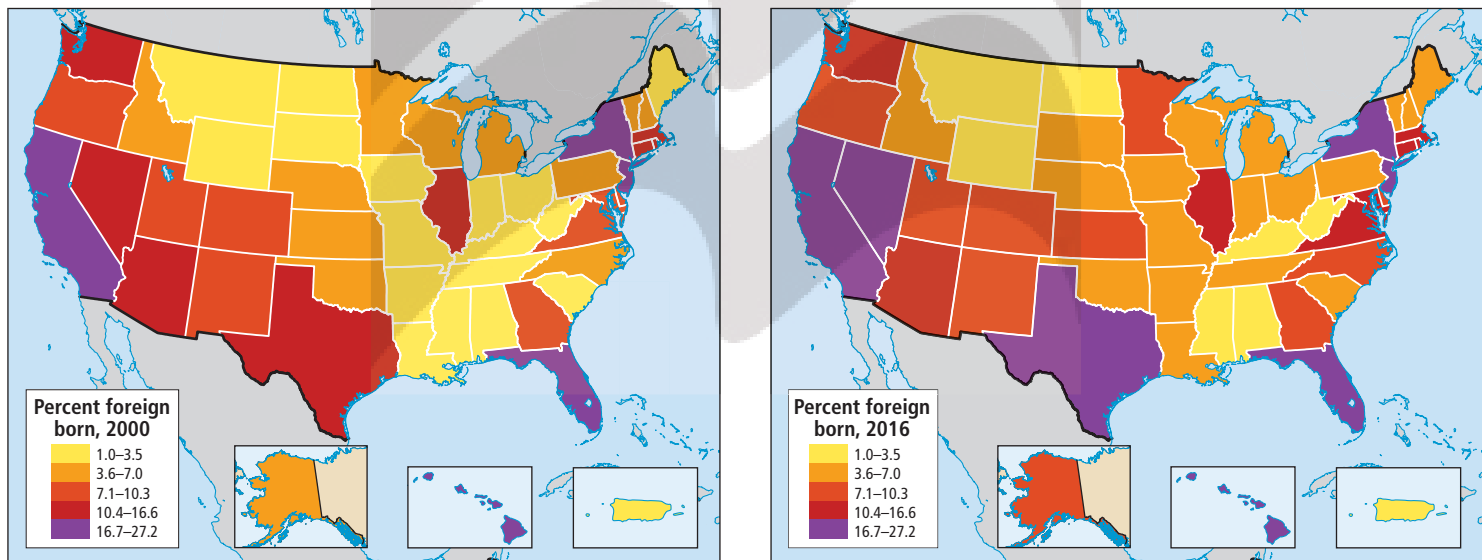


U.S. Population by Race and Ethnicity, 1950, 2014, and 2050 (projected)



**Figure 2.36** The changing ethnic composition in the United States, 1950, 2014, and 2050 (projected). As the percentage of ethnic minorities increases in the United States, the percentage of whites decreases. By 2050, if present reproductive trends continue, whites will constitute only slightly less than half of the population. [Data from: Jorge del Pinal and Audrey Singer, "Generations of Diversity: Latinos in the United States," *Population Bulletin* 52 (October 1997): 14; U.S. Census Bureau, "Race by Sex, for the United States, Urban and Rural, 1950, and for the United States, 1850 to 1940," *Census of Population, 1950*, Vol. 2, Part 1, United States Summary, Table 36, 1953, at <http://www2.census.gov/prod2/decennial/documents/21983999v2p1ch3.pdf>; <http://2010.census.gov/news/releases/operations/cb11-cn125.html>; <http://quickfacts.census.gov/qfd/states/00000.htm>; and <http://www.baltimoresun.com/sdut-us-whites-falling-to-minority-in-under-5-age-group-2013jun13-story.html>]

**Figure 2.37** Percent of total foreign-born people within each state in (A) 2000 and (B) 2016. [Data from: "Percent of People Who Are Foreign Born—United States—Places by State; for Puerto Rico Universe: Total Population, 2010 American Community Survey 1-Year Estimates," American FactFinder, U.S. Census Bureau, at [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_10\\_1YR\\_GCT0501.US13PR&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_1YR_GCT0501.US13PR&prodType=table); and 2016 data: <https://www.brookings.edu/blog/the-avenue/2017/10/02/recent-foreign-born-growth-counters-trumps-immigration-stereotypes/>]



(A) Percentage of foreign-born of total population within each state in 2000.

(B) Percentage of foreign-born of total population within each state in 2016.

about 1990, more immigrants have been settling in interior states such as Illinois, Colorado, Nevada, and Utah (Figure 2.37). The influence of immigrants can also be seen in many aspects of life in North America, including the popularity of ethnic cuisines (Figure 2.38).

### Why Do People Decide to Immigrate to North America?

Given the diverse economic opportunities that North America offers, immigration is often considered in terms of positive **pull factors** that draw in migrants. However, the decision to leave one's

homeland is usually not an easy one. There are almost always negative **push factors** that cause people to leave home, family, and friends, and strike out into the unknown with what are usually limited resources. These push factors can be civil or political unrest or some kind of discrimination, but most often they involve a lack of economic opportunity. Many push

**pull factors** positive factors that draw in migrants

**push factors** negative factors that cause people to leave home, family, and friends

**Figure 2.38 LOCAL LIVES:** Foodways in North America

**(A)** Pork ribs are smoked and slow cooked in the “pit” at Spoon’s Barbecue in Charlotte, North Carolina. Originally, Native Americans would first dig a pit or trench and fill it with burning coals or hot rocks. They would place meat on top and either slow cook it in the open at a low temperature for several hours or cover the entire pit and let it cook for a day or more. Most barbeque is now cooked in a metal smoker, still called a pit, which is often attached to a trailer so that it can be brought to special events. [Scott Olson/Getty Images]



**(B)** Poutine, a French Canadian dish, now hugely popular throughout Canada, consists of French fries served with cheese curds (a tasty by-product of cheese making) and covered in gravy. One story holds that in the 1950s, a take-out customer of Fernand LaChance’s restaurant in Warwick, Québec, asked for the combination of fries and cheese curds, to which the owner responded “Ça va faire une maudite poutine!” (“That’s going to make a cursed mess!”), thus giving the dish its name. The gravy was later added to keep the fries warm. [Christinne Muschi/Toronto Star via Getty Images]



**(C)** New England–style clam chowder served in a sourdough bread bowl is a classic San Francisco dish that springs from two American traditions. New England clam chowder was developed by fishers and consists of clams and other seafood, potatoes, and seasonings, cooked in a broth to which hard “sea biscuits” were mixed to thicken the chowder. In San Francisco, sourdough bread came via pioneer families and was later popularized by French bakers. It has a particularly sour, tangy flavor that is produced by local bacteria of the San Francisco Bay Area. [Andrew McKinney/Getty Images]

factors relate to the forces of globalization. For example, beginning in 1994 NAFTA (now USMCA) enabled subsidized U.S. agribusinesses to sell their corn in Mexico on a massive scale. As many as 2 million Mexican corn farmers who had small holdings found they could not compete with the artificially low price of U.S. corn and had to give up farming. With families to feed and educate, many of these farmers migrated across the border to the United States, where they now work in construction, as agricultural field laborers, or in a wide variety of service industries, living frugally and sending most of their earnings home. Some have entered the United States legally, but many—because of the complexities and costs of getting papers to immigrate—have entered illegally. Legal U.S. immigration visas are available in far fewer numbers than both the potential immigrants and the jobs available for them to fill.

### Do New Immigrants Cost U.S. Taxpayers Too Much Money?

Many North Americans are concerned that immigrants burden schools, hospitals, and government services. And yet numerous studies have shown that, over the long run, immigrants contribute more to the U.S. economy than they cost. Legal immigrants have passed an exhaustive screening process that assures they will be self-supporting. As a result, most start to work and pay taxes within a week or two of their arrival in the country. Most immigrants who draw on taxpayer-funded services tend to be legal refugees fleeing a major crisis in their homeland and are dependent

only in the first few years after they arrive. More than one-third of immigrant families are firmly within the middle class, with incomes of U.S.\$45,000 or more. Even undocumented (illegal) immigrants play important roles as payers of payroll taxes, sales taxes, and indirect property taxes through rent. Because they fear deportation, undocumented immigrants are also the least likely to take advantage of taxpayer-funded social services.

On average, immigrants are healthier and live longer than native U.S. residents, according to studies by the National Institutes of Health (NIH). They therefore create less drain on the health-care and social service systems than do native residents. The NIH attributes this difference to a stronger work ethic, a healthier lifestyle that includes more daily physical activity, and the more nutritious eating patterns of new residents compared to those of U.S. society at large. Unfortunately, these healthy practices tend to diminish the longer immigrants are in the country, and the healthier status does not carry over to immigrants’ children, who are nearly as likely to suffer from obesity as native-born children.

### Do Immigrants Take Jobs Away from U.S. Citizens?

The least educated, least skilled American workers are the most likely to end up competing with immigrants for jobs. In a local area, a large pool of immigrant labor can drive down wages in fields like roofing, landscaping, and general construction. Immigrants with little education now fill many of the very lowest-paid service, construction, and agricultural jobs.



It is often argued that U.S. citizens have rejected these jobs because of their low pay, which results in immigrants being needed to fill the jobs. Others say that these jobs might pay more and thus be more attractive to U.S. citizens if there were not a large pool of immigrants ready to do the work for less pay. Research has failed to clarify the issue. Some studies show that immigrants have driven down wages by 7.4 percent for those U.S. natives who do not have a high school diploma. However, other studies show no drop in wages at all.

### Are Too Many Immigrants Being Admitted to the United States?

Many people are concerned that immigrants are coming in such large numbers that they will strain resources here. There is some validity to this. Immigrants and their children accounted for 78 percent of the U.S. population growth in the 1990s. At the current growth rates, by the year 2050, the U.S. population could reach 445 million, with immigration accounting for the majority of the increase. But one of the problems with making these projections is that no one really knows how many undocumented immigrants there are. Most research indicates that illegal immigration possibly exceeded legal immigration rates during the mid-1990s. While estimates of the undocumented immigrant population currently in the United States range from 7 to 20 million, reports since 2012 indicate that migration—legal and illegal—is down to less than half that of previous years, and that for the past decade more undocumented immigrants have been leaving the United States than entering.

Undocumented immigrants tend to lack skills, and they are not screened for criminal background, as are all legal immigrants. However, research also shows that undocumented immigrants are not only less likely to partake of social services, but are also less likely than the general population to participate in criminal behavior, with only tiny percentages of them having committed offenses. Nevertheless, recent years have seen a surge in anti-immigrant sentiment in U.S. politics, with Donald Trump winning the 2016 presidential election in part on promises to build a wall along the entire U.S.–Mexico border in order to combat illegal immigration.

### Illegal Immigrant Children

Children have recently become a focus of U.S. immigration policy and enforcement. In 2018 the Trump administration began a policy of criminally prosecuting all immigrants caught crossing the border illegally. One aspect of this policy was the separation of children from their families during the legal process. A media scandal resulted as people throughout the world objected to the thousands of children being separated from their families, and the policy was quickly reversed. A longer-standing problem that is proving harder to deal with is the 13 percent of illegal immigrants caught crossing the U.S. border with Mexico who are children unaccompanied by an adult. Most are coming from Central America, where economic instability and violence have torn many families apart. Several types of U.S. policies also play a role in this migration. The *Central America Free Trade Agreement (CAFTA)* is an expansion of USMCA that has created many of the same problems for poor farmers in Central America as USMCA did in Mexico. U.S. policies that grant special rights to children also created the belief

among some Central American families that their children would be granted asylum in the United States if they arrived alone. Thousands of children have been deported back to their home countries, but many more are being held in prison-like detention facilities run by U.S. corporations. Relatively little action has been taken by the U.S. government or governments in Central America to address the root causes of the migration.

**VIGNETTE** Every youth who arrives at the border detention shelter in Arizona writes a life story in a creative writing class. A 14-year-old indigenous girl from Honduras started hers: “At 10 years old, my papa started to tell me the good things and the bad things.” The next day the teacher asked what this meant. After sitting in silence for 30 minutes, the girl wrote: “While my father is a good man, he did not always do good things. Some of these things created a bad situation for me.” Afraid to tell her mom, she called her brothers to help her leave Honduras.

Three years before, at the peak of the global recession, her then-teenage brothers, unable to find work in their rural area, decided to take the month-long journey to the United States by jumping trains through Mexico and then walking for days across the arid terrain of Texas. Once out of Texas, they found migrant farm work in Southern states. The brothers were working in Florida when they spoke to their sister on the phone.

Within days, the brothers sent their sister all of their savings—U.S.\$8000—and arranged for a *coyote* to accompany the girl to the United States. As an unaccompanied young woman, she was vulnerable to exploitation, abuse, and sex trafficking. Like most detained in the border shelter, she is unwilling to discuss what happened on her journey, describing it as “the necessary suffering to become someone.” Luckily, she made it without falling victim to the drug trafficking and fatal gang violence along the border.

In the 2 months it took her to arrive and be captured at the border, she lost contact with her brothers. Lacking family contacts and money, her deportation is likely. Her biggest desire is “to work hard and give the money back to my brothers.” *[Material for this vignette was pieced together by Lydia Pulsipher from personal correspondence with Elizabeth Kennedy and Stuart Aitken, geographers who participate in the ISYS Unaccompanied Minors project.]* ■

## RACE AND ETHNICITY IN NORTH AMERICA

Numerous surveys show that a large majority of North Americans of all backgrounds favor equal opportunities for racial and ethnic minority groups. Moreover, social norms, festivals, and other aspects of daily life are increasingly inclusive of all people, regardless of race or ethnicity (**Figure 2.39**). Nonetheless, in the United States, and to a lesser extent Canada, people of color regularly encounter discrimination, and statistics show that, with the notable exception of Asians, they have higher poverty rates, lower life expectancies, higher infant mortality rates, lower levels of academic achievement, and higher unemployment than whites. This is despite the removal of many legal barriers to equality over the past 60 years.

### A Backlash Against Growing Diversity

The United States has a long history of racially polarizing politics, but a backlash against growing diversity has occurred in recent years as many whites have become fearful of becoming a minority. Look

Figure 2.39 LOCAL LIVES: Festivals in North America



(A) Mardi Gras Indian Chief Golden Comanche leads a procession through a neighborhood in New Orleans, Louisiana. Mardi Gras, which means “Fat Tuesday,” marks the last day before the start of Lent, a 40-day period of fasting and abstinence in Christianity that precedes Easter. Mardi Gras Indians originated as a tribute to Native American communities that had harbored runaway enslaved African Americans. [Mario Tama/Getty Images]



(B) A temporary sculpture at Burning Man, a weeklong “art event and transitory community based on radical self-expression and self-reliance.” Begun in 1986 as a bonfire on the beach in San Francisco, Burning Man is guided by principles of inclusive participation, anticommmercialism, and the goal of not leaving any physical trace of the festival after it happens each year. [David McNew/Newsweek/Getty Images]



(C) Bull riding is an event at the Calgary Stampede, a 10-day rodeo, exhibition, and festival that was started in 1886 to help draw settlers from the east. Billed as the “Greatest Outdoor Show on Earth,” the Stampede draws more than a million people each year. The highlight of today’s Stampede is its rodeo, which offers more prize money than any other. [Photo by Todd Korol /Sports Illustrated/Getty Images]

again at Figure 2.36, which shows the changes in the ethnic composition of the U.S. population from 1950 to 2014 and the projected changes for 2050, by which time whites will be a minority. While Asians are the fastest-growing ethnic group, Latinos are the largest minority group, having overtaken African Americans in 2001, because of a higher birth rate and a high immigration rate. Current demographic studies suggest that the United States will be majority nonwhite by 2050 or earlier. Donald Trump’s campaign for the presidency responded to the anxiety that many white U.S. voters feel about being a minority. He appealed to people and organizations that support “white supremacy,” the notion that white people are superior to people of other races and should dominate them.

While whites will eventually be a minority in North America, they have dominated for so long that the economic and political systems they have created will continue to favor them long after they are a minority. For example, the practice of manipulating the boundaries of political districts to benefit candidates of a particular group or political party, known as **gerrymandering**, has long been used by political parties in the United States to ensure the success of candidates of a particular race (Figure 2.40). Because people of color are much more likely to vote for Democrats (84 percent more likely in the case of African Americans), and whites are more likely to vote for Republicans (51 percent vote Republican and 43 percent vote Democratic), both parties have altered the boundaries of political districts to give more representation to their favored group.

**gerrymandering** the practice of manipulating the boundaries of political districts to benefit candidates of a particular group or political party

Gerrymandering became more widespread and controversial in 2010, when Republicans made a major effort to win control of state legislatures in order to influence the adjustment of the boundaries

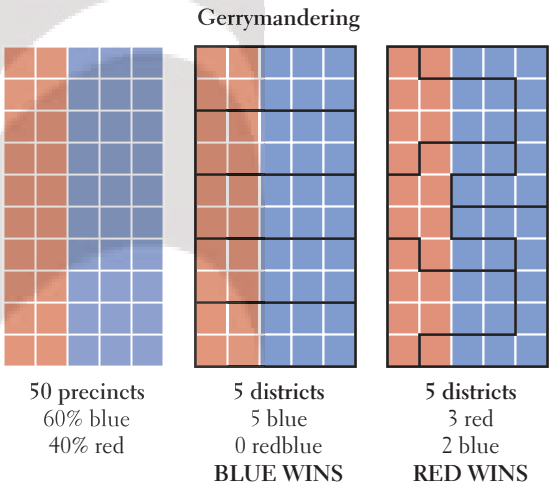


Figure 2.40 Gerrymandering [Data from: [https://commons.wikimedia.org/wiki/File%3AHow\\_to\\_Steal\\_an\\_Election\\_-\\_Gerrymandering.svg](https://commons.wikimedia.org/wiki/File%3AHow_to_Steal_an_Election_-_Gerrymandering.svg)]

of U.S. congressional districts, a process that occurs every 10 years as new census data become available. The result was rampant gerrymandering that led to overrepresentation of Republicans in the U.S. House of Representatives and in state legislatures. For example, in 2016 Republicans won control of 55 percent of seats in the U.S. House with only 49 percent of the vote. With the Republican party over 80 percent white, and the Democratic party over 40 percent people of color, the use of gerrymandering by Republicans is one way in which whites’ political power will continue to prevail in the United States even when people of color are a majority of the population.



Issues of race and politics are somewhat more muted in Canada than in the United States, even though both countries are on a similar trajectory toward whites being a minority within the next 25 years. People of color (often referred to in Canada as visible minorities) are predominantly Asian, and like Asians in the United States, they tend to be more educated and earn higher incomes than other people of color. Immigrants make up 22 percent of Canada's population versus 14 percent in the United States, but anti-immigrant sentiment is slightly lower than in the United States and all major political parties are pro-immigration. No Canadian political parties are attempting to extend the political power of the declining white majority with gerrymandering, because the practice has been illegal in Canada since the 1960s, as it has been in most of Europe.

### Income Discrepancies and the Culture of Poverty

Over the past few decades, many non-Euro-Americans and those of mixed heritage have joined the middle class, finding success in the highest ranks of government and business. In particular, African Americans have completed advanced degrees in large numbers, and more than one-third now live in the suburbs. Yet, as overall groups, African Americans, Latinos, and Native Americans remain the country's poorest and least formally educated people (Figure 2.41). Similar patterns exist in Canada, though income differences are less.

Is anything other than prejudice holding back some in these ethnic minority groups? Some social scientists suggest that persistently disadvantaged Americans of all ethnic backgrounds may suffer from a *culture of poverty*, meaning that poverty itself forces coping strategies that are counterproductive to economic and social advancement. For example, most people living in poverty do not have the opportunity to complete a college education. They work at jobs with low wages, and because of housing segregation few can find decent affordable housing. Meanwhile, low social status can create the perception that there is no point in trying to succeed.

One component in the culture of poverty is the growing numbers of low-income, single-parent families among people of color. In 2015, only 25 percent of white children lived in single-parent families, while 67 percent of African Americans, 52 percent of Native Americans, and 42 percent of Latinos did. One reason for these differences is that social welfare programs in the United States give significantly more income support to single-parent families than to two-parent families. This has the effect of penalizing married couples with children and rewarding those that live separately. The assistance packages usually

fall far short of meeting actual needs, and the enormous responsibilities of both child rearing and breadwinning are often left in the hands of young mothers who, being undereducated and overworked, are less able to help their children rise out of poverty.

One result of the proliferation of single-parent households in the United States with lower education levels and incomes is high rates of child poverty. In 2014 in the United States, 20 percent of children aged 0 to 17 (14.5 million) lived in poverty, whereas only 14.5 percent of adults did. In Canada, these figures are about the same, though that country's more extensive social programs reduce the worst impacts of poverty such as hunger and illness. By comparison, in Denmark, just 3.8 percent of children lived in poverty; in the UK, 9.5 percent, and in France, 10.8 percent.

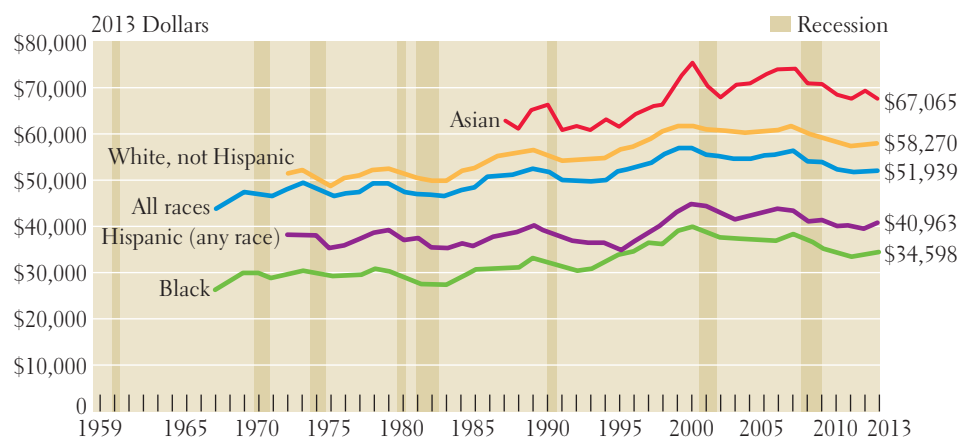
### Race and Law Enforcement in the Spotlight

In 2008 and again in 2012, the United States made history by electing its first African American president. Some heralded this as the end of racism and of the need even to talk about race. As if to prove them wrong, an avalanche of news stories about police shootings of unarmed people of color occurred. The statistics are disturbing, with African Americans roughly three times as likely to be shot by police as whites, and with fewer than one-third of the African Americans killed by police suspected of a crime and armed.

Lost in most discussion is the fact that unwarranted shootings by police that disproportionately affect people of color, even though they are quite common, have historically rarely made even the local news, much less the national news. Another sign of progress is the fact that the current rate of police shootings involving people of color is low relative to the 1970s, as is the rate at which police are being killed in the line of duty. Most importantly, there are proven policies that police departments throughout North America have implemented and that have resulted in fewer shootings of both citizens and police, though to date relatively few departments have done so. It may be a long time before any person's or organization's claims to be "beyond race" ring true in the United States, but at least the subject is receiving more attention, being more openly discussed, and in some cases effective action is being taken.

## RELIGION

Because so many early immigrants to North America were Christian in their home countries, Christianity is currently the predominant religious affiliation in North America. In surveys taken in



**Figure 2.41** Median household income by race and ethnicity, in U.S. dollars, 1967–2013. [Data from: <http://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-252.pdf>]

2017, 73 percent of those living in the United States identified themselves as Christian, as did 67 percent of those in Canada. In the United States, Protestants are the most numerous religious group, making up 48 percent of the population; in Canada Catholics are more numerous at 39 percent. Despite the numerical dominance of Christianity, about 23 percent of people in both countries reported having no religious affiliation, and the number who identify as Christian is declining in both countries. There has been an increase in the number of people who identify with no tradition at all and of those who identify as Muslim, Hindu, and Jewish.

The Geography of Christian Subgroups

There are many versions of Christianity in North America, and their geographic distributions are closely linked to the settlement patterns of the immigrants who brought them here (Figure 2.42). Roman Catholicism dominates in regions where Latino, French, Irish, and Italian people have settled—in Québec, the Southwestern United States, southern Louisiana, and New England. Lutheranism is dominant where Scandinavian people settled, primarily in Minnesota and the eastern Dakotas. Mormons dominate in Utah.

Baptists, particularly Southern Baptists, and other evangelical Christians are prominent in the *Bible Belt*, which stretches across the Southeast from Texas to the Atlantic coast. Evangelical Christianity is such an important part of community life in the South that frequently the first question newcomers to the region are asked is what church they attend. Among all the subregions in North America, rates of weekly attendance at a religious service are highest in the southern United States.

The Relationship Between Religion and Politics

Just how interactive religion and politics should be in North American life has long been a controversial issue in the United States, more so than in Canada. While framers of the U.S. Constitution declared that church and state should remain separate to ensure religious freedom, religion has had a powerful influence on politics in the form of Christian political movements surrounding the abolition of slavery (1770s to 1865); the prohibition of the sale, production, and distribution of alcohol (1840s to 1933); the movement to ban abortion (1970s to the present) and the promotion of prayer in the public schools (1960s to the present); and the failed movement to ban same-sex marriage (1970s to 2015), just to name a few.

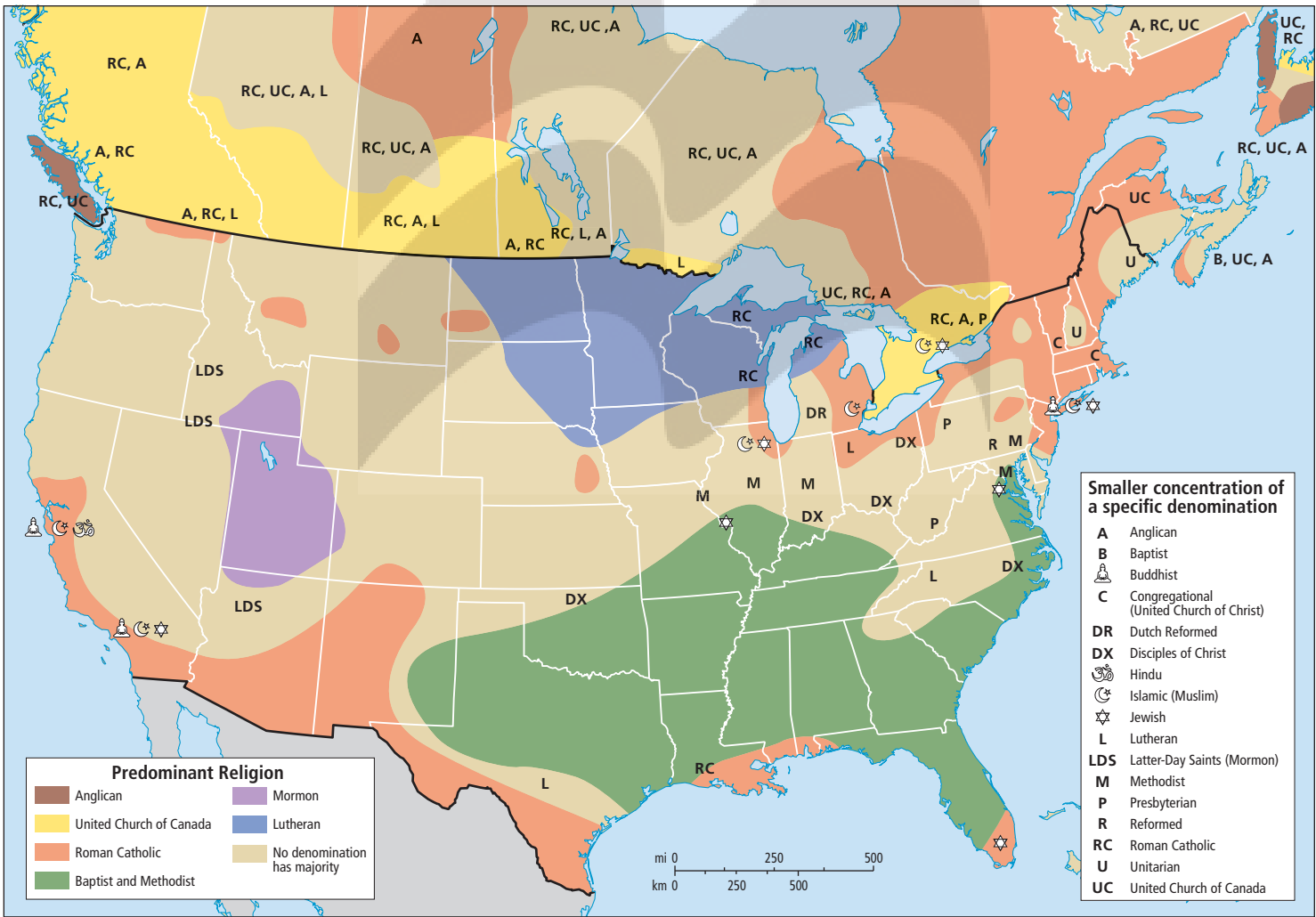


Figure 2.42 Religious affiliations across North America. [Data from: Jerome Fellmann, Arthur Getis, and Judith Getis, *Human Geography* (Dubuque, IA: Brown & Benchmark, 1997), p. 164; and <http://www.pewresearch.org/topics/religious-affiliation/2015/pages/3/>]



National surveys have consistently indicated that a substantial majority of North Americans favor the separation of church and state and support personal choice in belief and behavior. And yet since the 1970s, U.S. Evangelical Christians have become highly politically mobilized, to the point where this group now accounts for over one-quarter of the voting public even though it represents only about 15 percent of the population. The racial divide among U.S. evangelicals is stark, with whites overwhelmingly supporting the Republican Party and nonwhites supporting Democrats.

## THE AMERICAN FAMILY

The family is often seen as being endangered by North America's fast-changing culture. A century ago, most North Americans lived in large, extended families of several generations. Families pooled their incomes and shared chores. Aunts, uncles, cousins, siblings, and grandparents were almost as likely to provide daily care for a child as were the mother and father. Though the **nuclear family**, consisting of a married father and mother and their children, has been a part of society going back through history, it became especially widespread in the post-1900 industrial age.

### The Nuclear Family Becomes a Shaky Norm

After World War I, and especially after World War II, many young people began to leave their large kin groups on the farm and migrate to distant cities, where they established new nuclear families. Suburbia, with its many similar single-family homes, soon seemed to provide the perfect domestic space for the emerging nuclear family.

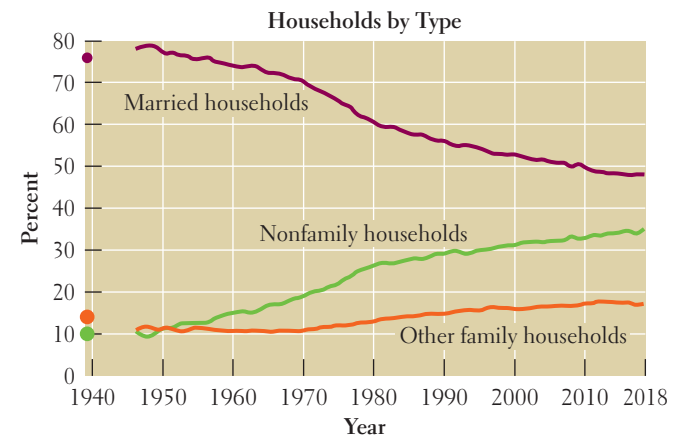
This compact family type suited industry and business because it had no firm ties to other relatives and so was portable. Many North Americans born since 1950 moved as many as ten times before reaching adulthood. The grandparents, aunts, and uncles who were left behind missed helping raise the younger generation and had no one to look after them in old age. This separation of older from younger generations is one reason nursing homes for the elderly have proliferated.

In the 1970s, the nuclear family encountered challenges from many areas, including changing gender roles. Suburban sprawl meant onerous commutes to jobs for men and long, lonely days at home for women. More women began to want their own careers, and rising consumption patterns made their incomes useful to family economies. By the 1980s, 70 percent of working-age women were in the paid workforce, compared with 30 percent of their mothers' generation.

Once both parents are employed, however, a family cannot as easily move to a new location for one spouse's upwardly mobile career. Also, working women could not manage all of the family's housework and child care, as well as a job, so the demand for commercial child care grew sharply. With family no longer around to strengthen the marital bond, and with more women able to support themselves and not financially bound to unhappy marriages, divorce rates rose. This continued into the mid-1970s, after which the rate of divorce declined, possibly as a result of higher levels of education, which decreases the likelihood of divorce.

### The Current Diversity of North American Family Types

There is no longer a typical American household, only a diversity of household forms and ways of family life (Figure 2.43). In 1960, the nuclear family—households consisting of married couples with children—comprised 74.3 percent of U.S. households.



**Figure 2.43** U.S. households by type, 2014. [Data from: "Selected Population Profile in the United States: 2007–2009 American Community Survey 3-Year Estimates," American FactFinder, U.S. Census Bureau, at [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_09\\_3YR\\_S0201&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_09_3YR_S0201&prodType=table); and <http://www.census.gov/content/dam/Census/library/publications/2014/demo/p60-249.pdf?csp=SERP>]

This number declined to 56 percent by 1990 and to 49.3 percent by 2010. Family households headed by a single person (female or male) rose from 10.7 percent in 1960, to 15 percent in 1990, to 18 percent in 2010. Nonfamily households (unrelated by blood or marriage) rose from 15 percent of the total in 1960, to 29 percent in 1990, to nearly 34 percent in 2010. Canada has similar patterns of change: nuclear family households shrank from 91.6 percent of all Canadian households in 1961 to 67 percent in 2011; family households headed by a single parent rose from 8.4 percent in 1961 to 16.3 percent in 2011; and nonfamily households rose from 8.6 percent in 1961 to 17.1 percent in 2011.

**nuclear family** a family consisting of a married father and mother and their children

## CHECK YOUR UNDERSTANDING

1. How is migration changing the ethnic and racial makeup of North America?
2. Generally speaking, how do race and ethnicity impact access to health care, education, and financial services in North America?
3. How does the percentage of children living in poverty in the United States and Canada compare to other developed countries?
4. What forces have transformed North American families in the past century?

## SUBREGIONS OF NORTH AMERICA

**2.10** Identify key characteristics of the subregions of North America.

When geographers try to understand patterns of human geography in a region as large and varied as North America, they usually impose some sort of subregional order on the whole (Figure 2.44).



**Figure 2.44** Subregions of North America. The division of North America into subregions, as shown here, is partly based on *The Nine Nations of North America* (1981) by Joel Garreau. He proposed a set of regions that cut across state and national boundaries.

The order used in this book divides North America into eight subregions, partly inspired by Joel Garreau's *The Nine Nations of North America* (1981). Each section on a subregion sketches in the features that give the subregion its distinct “character of place.” As we noted in Chapter 1, however, geographers rarely reach consensus on just where regional boundaries should be drawn or specifically how to define a given region.

## NEW ENGLAND AND THE ATLANTIC PROVINCES

New England and Canada's Atlantic Provinces (**Figure 2.45**) were among the earliest parts of North America to be settled by Europeans. Of all the regions of North America, this one may maintain the strongest connection with the past, and it holds a reputation as a North American *cultural hearth*, meaning the place from which much culture has emanated. Philosophically, New Englanders laid the foundation for religious freedom in North America through their strong conviction, which eventually became part of the U.S. Constitution, that there should be no established church and no

requirement that citizens or public officials hold any particular religious beliefs. New England in particular is the source of a classic American village style that is arranged around a town square, or *common*. Once used for grazing animals, many commons are now public parks, such as Boston Common (**Figure 2.46**). Many interior furnishing styles also originated in New England; in all classes of American homes today, there are copies of New England–designed furniture and accessories.

## The Past Lives in the Present

Many of the continuities between the present and past economies of New England and the Atlantic Provinces derive from the region's geography. During the last ice age, glaciers scraped away much of the topsoil, leaving behind some of the finest building stone in North America but only marginally productive land. Although farmers settled here, they struggled to survive. Although many areas in the region now try to capitalize on their rural and village ambiance and historic heritage by enticing tourists and retirees, outside of a few large cities on the coast or near New York City,





**Figure 2.45** New England and the Atlantic Provinces subregion.

many areas, especially in northern New England and the Atlantic Provinces of Canada, remain relatively poor.

After being cleared in the days of early settlement, New England's evergreen and hardwood deciduous forests have slowly returned to fill in the fields abandoned by farmers. Some of these second-growth forests are now being clear-cut by logging companies, and in rural areas, paper milling from wood is still supplying jobs as other blue-collar occupations die out.

Abundant fish was the major attraction that drew the first wave of Europeans to New England. Around the time of Columbus, fishers from Europe's Atlantic Coast were coming to the Grand Banks, offshore of Newfoundland and Maine, to take huge catches of cod and other fish. The fishing lasted for more than 500 years, but eventually the Grand Banks fish stocks were depleted by modern industrial fishing practices (some of these large, factory-type vessels came from Japan and Russia) that have a severe impact on marine ecosystems. Canada and the United States extended their legal boundaries to 200 miles offshore, but unsustainable fishing



**Figure 2.46** A New England common. Most towns in New England are centered around an open space called a common. Once used for grazing animals, most commons are now parks used for recreation and community events. This common is in Boston, Massachusetts. [Joe Raedle/Getty Images]

practices were retained until, in the 1980s, there was a crash in cod and other fish species. Tens of thousands of New England and Atlantic Province fishers had to find alternative employment. By 2015 science-based catch limits, set by the New England Fishery Management Council, had failed to curtail the crash of cod fisheries. New research suggests that higher ocean temperatures related to climate change are now preventing cod populations from rebounding.

### Strong and Diverse Human Resources

Many parts of southern New England now thrive on service- and knowledge-based industries that require skilled and educated workers: insurance, banking, high-tech engineering, and genetic and medical research, to name but a few. New England's considerable human resources derive in large part from the strong emphasis placed on education, hard work, and philanthropy by the earliest Puritan settlers, who established many high-quality schools, colleges, and universities. The cities of Boston and Cambridge have some of the nation's foremost institutions of higher learning (Harvard, the Massachusetts Institute of Technology, and Boston University, for example). The Boston area has capitalized on its supply of university graduates to become among North America's most important high-technology centers, comparable to California's Silicon Valley.

In its cities New England is no longer the Anglo-American stronghold that people sometimes imagine. The dominant Anglo-American population has for years shared New England with Native Americans, African Americans, and immigrants from Portugal and southern Europe, but today, in cities such as Boston and Providence, people of color are more numerous than whites. Corner groceries may be owned by Koreans or Mexicans;

Jamaicans may be law students or street vendors selling meat patties and hot wings; restaurants serve food from Thailand; and schoolteachers may be Filipino, Brazilian, or West Indian. The blossoming cultural diversity of New England and the entrepreneurial skills of new migrants are helping the subregion keep pace with change across the continent. These trends are less obvious in the Atlantic Provinces of Canada, but there too, immigrants from Asia and elsewhere are influencing ways of life.

CHECK YOUR UNDERSTANDING

- 1. How has the ideal of religious freedom influenced New England and the region as a whole?
- 2. What type of village/town pattern of spatial organization originated in New England?
- 3. What New England city is a major North American high-tech center?
- 4. How has the racial/ethnic makeup of some New England cities changed?

QUÉBEC

Québec is the most culturally distinct subregion in all of North America (Figure 2.47). For more than 300 years, most of the population has been French-speaking. French Canadians are

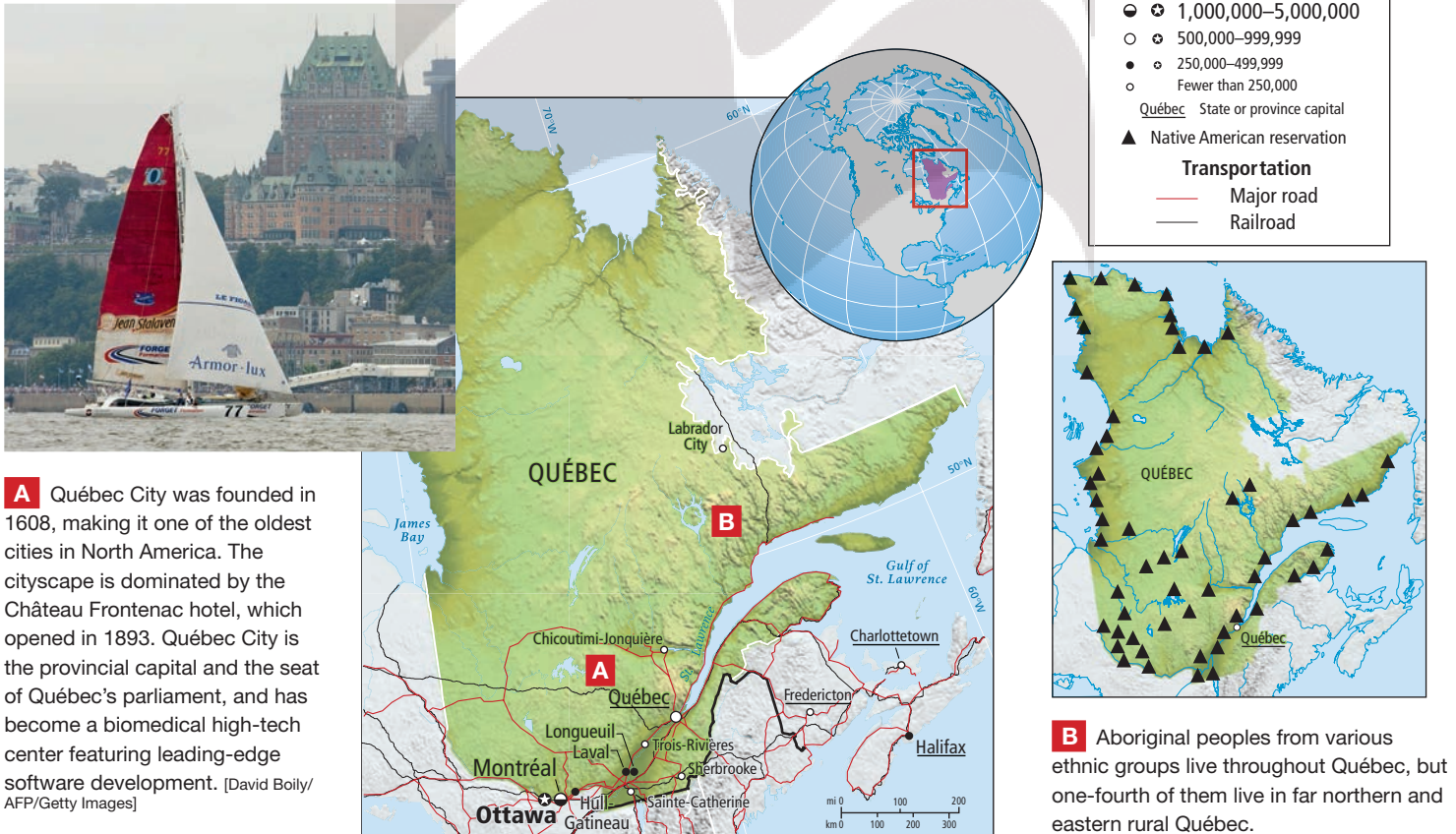
now struggling to resolve Québec's relationship with the rest of Canada.

Origins of French Settlement

In the seventeenth century France founded key cities in Québec and began encouraging its citizens to settle in Canada. By 1763, when France ceded its Canadian colonies to Britain at the conclusion of the Seven Years War, there were 65,000 French settlers in Canada. Most lived along the St. Lawrence River, which linked the Great Lakes (and the interior of the continent) to the world ocean and global trade. The settlers lived on long, narrow strips of land that stretched back from the river's edge. This long-lot system gave the settlers access to resources from both the river and the land: they fished and traded on the river, they farmed the fertile soil of the floodplain, and they hunted on higher forested ground beyond. Because of the orientation of the long lots to the riverside, early French colonists joked that one could travel along the St. Lawrence and see every house in Canada.

Through the first half of the twentieth century, Québec remained a land of farmers with little formal education eking out a living on poor soils similar to those of New England and the Atlantic Provinces, growing only enough food to support their families. After World War II, Québec's economy grew steadily, propelled by increasing demand for the natural resources of northern

Figure 2.47 The Québec subregion.





Québec, such as timber, iron ore, and hydroelectric power. In the St. Lawrence River valley, cities prospered from the river transport and the processing of resources (see Figure 2.47). Most of these enterprises were in the hands of Anglo-Canadians (those with ancestry in the British Isles) who tended to be better educated, wealthier, and politically dominant in the key city of Montréal, Québec's most prosperous city.

### The Quiet Revolution

In the mid-twentieth century, as rural French Canadians moved into Québec's cities, the so-called Quiet Revolution began. Because their access to education and training was growing, the Québécois were for the first time able to compete with English-speaking residents of Québec for higher-paying jobs and political power. Gradually, their conservative Catholic, rural-based culture gave way to a more cosmopolitan one that began to challenge discrimination at the hands of English speakers. The Québécois resisted Anglo-Canadian disparagement of Québécois culture and efforts to block access to education and economic participation. In the 1970s, the Québécois pushed for more autonomy from Canada and then for outright national sovereignty (separation from Canada). The province passed laws that heavily favored the French language in education, government, and business. In response, many English-speaking natives of Québec left the province. A referendum on Québec sovereignty failed narrowly in 1996. By 2009, a new, more articulate and less radical movement had emerged among young adults, seeking Québécois control over all manner of social policies and even over foreign policy. Specifically, they sought foreign policy control because of strong opposition to Canada's participation with the United States in the war in Afghanistan. In recent years the issue of sovereignty for Québec has remained on the back burner.

Québec extends north into areas around Hudson Bay that are rich in timber and mineral deposits (iron ore, copper, and oil) and are also the homelands of many Aboriginal peoples (see Figure 2.47B). The resources are hard to reach in the remote, difficult, glaciated terrain of the Canadian Shield. Although these are the native lands of the Cree and Inuit Aboriginal peoples, the Québec provincial government has legal control of resources and since the 1970s has pushed through the development of a series of hydroelectric power projects in the vicinity of James Bay (part of Hudson Bay) in order to run mineral-processing plants, sawmills, and paper mills. There is significant public Québécois support for the project, which is seen as serving the popular goals of eliminating oil imports and shifting to hydroelectric power and wind power. However, since the 1970s, the Cree and Inuit have protested the clear-cutting of their forests for paper production, the diversion of pristine rivers for hydro-power dams, and the loss of natural ecosystems. By 2015, the James Bay project had been largely completed, with protests quieted by large cash payments to the Cree and Inuit. Some electric power generated in northern Québec is sold to the northeastern United States, accounting for about 10 percent of its power consumption.

### CHECK YOUR UNDERSTANDING

1. Why is Québec the most culturally distinct subregion in North America?
2. How have the Québécois responded to discrimination against them in Canada?
3. Which groups have disagreed with the Québec provincial government over development of the subregion's natural resources via the James Bay project?

### THE OLD ECONOMIC CORE

The Old Economic Core—an area that includes southern Ontario and the north-central part of the United States, from Illinois to New York (Figure 2.48)—represents less than 5 percent of the total land area of the United States and Canada, but it was once the economic core of North America. As recently as 1975, its industries produced more than 70 percent of the continent's steel and a similar percentage of its motor vehicles and parts, an output made possible by the availability of energy and mineral resources in the region or just beyond its boundaries. The industrial economy of this region has gone into severe decline, and large cities dependent on manufacturing, such as Detroit and Cleveland, and hundreds of smaller cities and towns, have suffered near economic collapse. Detroit's decline has been the most spectacular of any large city in North America, with its population (just over 600,000) now around a third of what it was in 1950 (1.8 million). Dotted with gigantic abandoned factories and public buildings (Figure 2.49), Detroit is a symbol of the *Rust Belt*, a popular term for this subregion.

### Loss of Economic Dominance

Plants started closing in the 1970s, and by the 1990s, most manufacturing jobs had moved outside the old industrial heartland to the South, Middle West, Pacific Northwest, and abroad. Industrial resources for factories now come from elsewhere: coal is mined in Wyoming, British Columbia, Alberta, and Appalachia; steel, the mainstay of the automotive and construction industries, can be more cheaply obtained from scrap metal or purchased from China, India, or Brazil.

### The Impact of the Economic Decline on People

After World War II, industrial jobs drew millions of rural men and women, both black and white, from the South. Many of their sons and daughters, now without work and without funds to retrain or relocate, constitute some of the more than 46 million North Americans living in poverty as of 2016. Consider the case of one inner-city neighborhood on the west side of Chicago, called North Lawndale, which has had repeated massive job losses.

In 1960, there were 125,000 people living in North Lawndale. It had two large factories employing 57,000 workers, and a large retail chain's corporate headquarters that had thousands of secretaries and office workers. One by one, the large employers closed their doors, and by the 1980s North Lawndale was disintegrating. The housing stock deteriorated as families and businesses left to look for opportunities elsewhere. By 2010, North Lawndale had shrunk to just 36,000 people, and the median household income was roughly half of that for Chicago as a whole.



Figure 2.48 The Old Economic Core subregion.



**Figure 2.49** Michigan Central Railroad Station in Detroit. When it was built in 1913, Michigan Central Station was the tallest train station in the world. With the rise of automobile-based transportation, though, by 1956 the building was virtually unused. It finally closed in 1988 and has been deteriorating ever since. Now the question is: Will concerns about fuel costs and CO<sub>2</sub> emissions decrease automobile use and reintroduce an era of rail transportation? [J.D. Pooley/Getty Images]

Despite the importance of industry, it would be wrong to think of the Old Economic Core as solely based on factories and mines. The region's largest cities, such as New York, Toronto, and Chicago, continue to prosper, largely because of their strong service industries, which connect them to global economies and make them highly influential throughout North America. Between the great industrial cities of this region are thousands of acres of some of the best temperate-climate farmland in North America. And thousands of miles of shoreline around the Great Lakes and ocean-front along the Eastern Seaboard provide both winter and summer recreational landscapes, as do the mountains of New York State and Pennsylvania.

**CHECK YOUR UNDERSTANDING**

1. What was this subregion's relationship to the rest of North America?
2. What factors brought on economic decline in the Old Economic Core?
3. How are this subregion's largest cities faring economically today?

**THE AMERICAN SOUTH (THE SOUTHEAST)**

The regional boundaries of the American South are perhaps less distinct and based more on a perceived state of mind and way of life than are those of most other U.S. regions. This region, in fact,



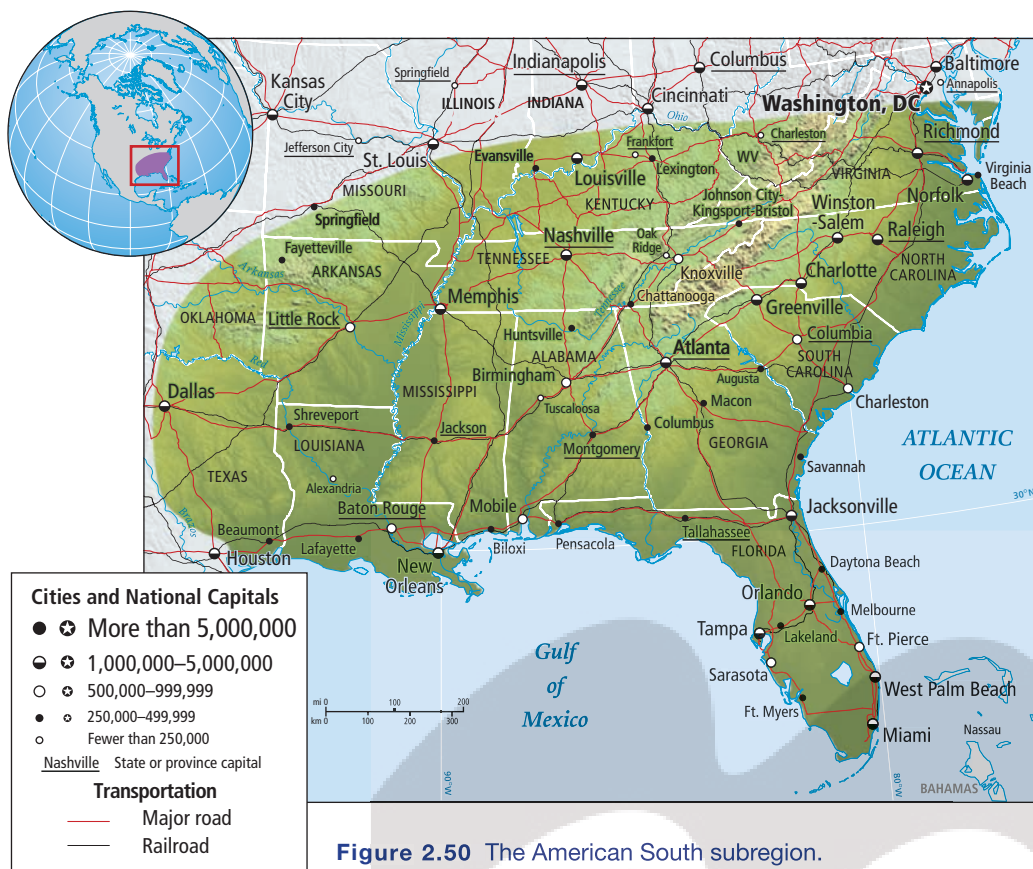


Figure 2.50 The American South subregion.

covers only the southeastern part of the country, not the whole of the southern United States (Figure 2.50). Somewhere west of Houston, Texas, the American South grades into the Southwest, a region with noticeably different environmental and cultural features.

### Multiple Images Characterize the South

The American South is dominated by a complex of features that many people would identify as *Southern*: a wide range of unique dialects; barbecue and other comfort foods from both white and African American traditions (see Figure 2.38A); stock car racing; horse farms; bluegrass, jazz, country, and blues music; the open friendliness of the people; conservative stances on politics, gun ownership, and abortion; and the prominent role of religion in public life.

Some places in the South have few recognizable Southern qualities (Figure 2.51). Parts of Missouri, Oklahoma, and Texas have strong ties to the Great Plains; Miami, on the far southern tip of Florida, with its cosmopolitan Latino culture and its trade and immigration ties to the Caribbean and South America, hardly seems Southern at all. New Orleans, also in the heart of the South, has a unique set of cultural roots—French, African, Cajun, Creole, Caribbean—that set it apart from other Southern cities.

North Americans and foreign visitors to the South tend to hold many outdated images of this subregion from the civil rights era of the 1960s and even from the Civil War era. It is true that significant racial segregation still persists in that black people and white people tend to live and worship separately, but in fact, many

more whites and blacks share neighborhoods in the South than in the Old Economic Core. In rural and urban settings, schools are becoming more integrated as a result of residential patterns as well as busing plans and magnet schools. The workplace is now integrated, and it is not uncommon to find African Americans and other minorities in supervisory and administrative positions, in business, government, and education. Biracial families are common.

Since the 1990s, Latino immigrants have come by the thousands into Southern cities. Of the 11 U.S. cities with the largest Hispanic populations, 3 are in the Southeast. Much of the restaurant service, road maintenance, landscaping, roofing, and construction work is now done by Spanish-speaking workers from Mexico and Central America, many of whom are sinking roots in the region and saving to establish businesses and buy homes.

### Poverty Persists for Some, but Return Black Migration Is a Boon

The South has the nation's highest concentration of families living below the poverty line, and most of them are white. On the other hand, Southerners of any race or ethnicity are able to maintain a substantially better standard of living than their parents did.

Many African Americans left the South in the 1950s and 1960s for factory jobs in the Old Economic Core in what was called the *Great Migration*. Now increasing numbers are coming back to the region because of jobs, business opportunities, the lower cost of living, a milder climate, as well as safer, more spacious, and friendlier neighborhoods than the ones they left in places such as New York, Illinois, or California. This return is being called the *New Great*



**Figure 2.51 Atlanta's Dragon Con.** Cosplayers (short for costume players) dressed as *Star Wars* stormtroopers at Atlanta's Dragon Con, a 4-day multi-genre convention that focuses on science fiction, fantasy, comics, cartoons, and associated fan cultures. Dragon Con is one of the city's largest conventions, drawing 50,000 participants each year and contributing more than U.S.\$25 million to the metropolitan economy. Atlanta is widely considered the capital of the American South subregion, given its large population (just under 6 million people), its central location within the region, and its historical importance. [John Amis/AFP/Getty Images]

**Migration.** In the 1990s, 3.5 million people who self-identified as black moved to the South from other parts of the United States. Seven of the ten metropolitan areas that gained the most African American migrants during the 1990s were in the South, principally in Florida, Georgia, North Carolina, Virginia, Tennessee, and Texas. Other Southern states had no increase, and Louisiana experienced black emigration even before Hurricane Katrina. Since 2000, half a million new black residents have moved to Atlanta, many of them young, educated professionals. Another 500,000 of Atlanta's newest citizens are Hispanic, and Asians constitute another substantial minority.

The South is steadily improving its position as a region of growth. The federally funded Interstate Highway System opened the South to auto and truck transportation. Inexpensive industrial locations, close to arterial highways, have drawn many factories to the South, including those involved in automobile and modular-home manufacturing. For several decades, tourists and retirees by the hundreds of thousands have been driving south on the interstate highways, many attracted by the bucolic rural landscapes, historic sites, and warm temperatures.

Southern agriculture is now highly mechanized and more specialized than ever before. Strawberries, blueberries, peaches, tomatoes, mushrooms, and wines from local vineyards are replacing the traditional cash crops of tobacco, cotton, and rice. Most of the country's broiler chickens are now raised by large operations

throughout the South. The laborers willing to take low-wage jobs on these factory farms are often immigrants from places such as Russia, Ukraine, Vietnam, Haiti, and Honduras.

### CHECK YOUR UNDERSTANDING

1. What are some defining characteristics of the American South?
2. Most families living below the poverty line in the South are of what racial/ethnic background?
3. What role has the Interstate Highway System played in economic development in the South?

### THE GREAT PLAINS BREADBASKET

The Great Plains (**Figure 2.52**) received its nickname, the *Breadbasket*, from the immense quantities of grain it produces—wheat, corn, sorghum, barley, and oats. Other agricultural products include soybeans, sugar beets, sunflowers, and meat. But the Great Plains has many agricultural challenges, and the agricultural system as we know it in this region may not persist.

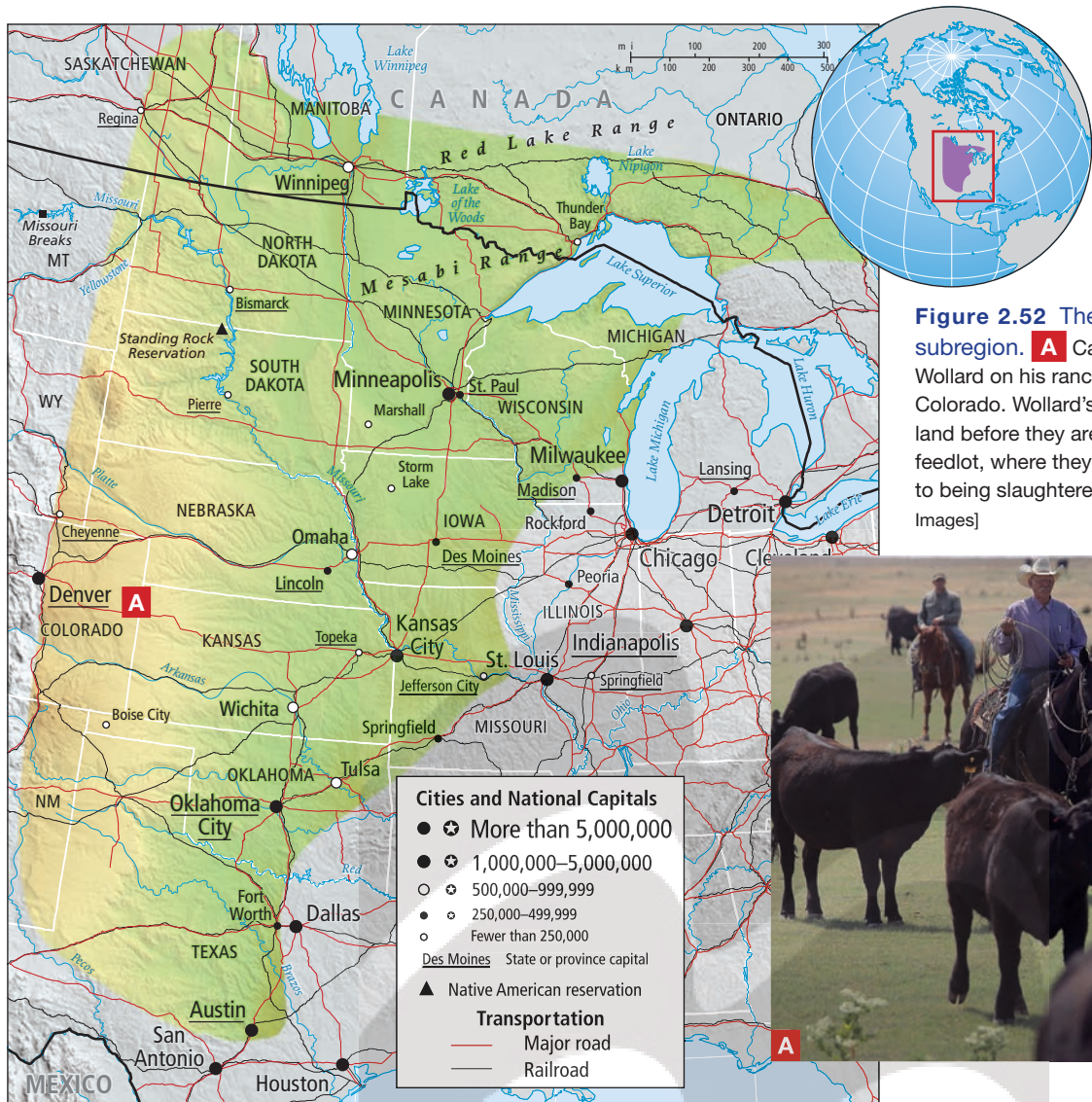
While the gently undulating prairies give the region a certain visual regularity, its weather and climate, in contrast, can be extremely unpredictable, making life precarious at times. In spring, more than a hundred tornadoes may strike across the region in a single night, taking lives and demolishing whole towns. Precipitation is unpredictable from year to year. Summers in the middle of the continent, even as far north as the Dakotas, can be oppressively hot and humid yet lacking in sufficient rainfall, while winters can be terribly cold and dry, or extremely snowy.

### Adapting to the Challenges of the Great Plains

The people of the plains learned to adapt to these challenges long before European settlers began to stake claims there in the 1860s. As people do in even drier regions in the Continental Interior, Great Plains farmers often irrigate their crops with water pumped from deep aquifers and delivered with central-pivot sprinklers that irrigate circular-shaped areas (**Figure 2.53**). However, to produce enough grain for one slice of bread in irrigated fields takes 10.4 gallons of water, a rate of water usage that is not sustainable (see Table 1.2 in Chapter 1). Most wheat is harvested by an energy-intensive system that involves traveling teams of combines that are used to start harvesting in the south in June and move north over the course of the summer. To select the most profitable crops and find the best time to sell them, plains farmers keep close tabs on the global commodities markets, usually with computers installed in barns, homes, or even in the cabs of the huge (and very costly) farm machines they use to work their land.

Animal raising, the other important activity in the Great Plains, has become problematic from environmental and animal-rights perspectives (see **Figure 2.52A**). Rather than being herded on the open range, as in the past, cattle are now raised in fenced pastures and then shipped to feedlots, where they are fattened for market on a diet rich in sorghum and corn, but often in muddy, inhospitable pens. And like wheat, meat production uses a great deal of water in an area prone to drought. For example, to grow and process the amount of beef in one hamburger requires 640 gallons of water.





**Figure 2.52** The Great Plains subregion. **A** Cattleman Gary Wollard on his ranch in eastern Colorado. Wollard's cattle graze on his land before they are shipped off to a feedlot, where they are fattened prior to being slaughtered. [John Moore/Getty Images]



**Figure 2.53** Irrigation in the Great Plains and Continental Interior. A center-pivot irrigation system as seen from the air in eastern Oregon. Often a well at the center of each irrigator taps an underground aquifer at an unsustainable rate. [David Boyer/National Geographic/Getty Images]

Erosion is a serious problem on the plains: soil is disappearing more than 16 times faster than it can form. Grain fields and pasture grasses do not hold the soil as well as the original dense prairie grasses once did. Plowing and the sharp hooves of the cattle loosen the soil so that it is more easily carried away by wind and water erosion. Experts estimate that each pound of steak produced in a feedlot results in 35 pounds of eroded soil. Given the costs in soil and water, raising cattle in this region is by no means a sustainable economic activity.

### Globalization Impacts in the Great Plains

Cattle and other livestock, such as hogs and turkeys, are slaughtered and processed for market in small plants across the plains by low-wage, often immigrant, labor. In the 1970s, a meatpacking job in one of the Great Plains major cities provided a stable annual income of U.S.\$30,000 or more, relatively high for the time. The workforce was unionized, and virtually all workers were descendants of German, Slavic, or Scandinavian immigrants who arrived in North America in the nineteenth century. But in the 1980s, a number of unionized meatpacking companies closed their doors. Other nonunion plants opened, often in isolated small towns in



Iowa, Nebraska, and Minnesota. Workers are often recent immigrants from Mexico, Central America, Laos, and Vietnam. Pay is often minimum wage, and with union work rules gone, safety is often haphazard. Working hours are long or short, at the convenience of the packing-house manager, overtime pay is rare, and those who protest may lose their jobs.

Many of the immigrant workers are refugees from war in their home countries, and their path to assimilation into American society is blocked by wages that are not sufficient to provide a decent life for their children. The Reverend Tom Lo Van, a Laotian Lutheran pastor in Storm Lake, Iowa, says of the Laotian families in his church that the youth are unlikely to prosper from their parents' toil. "This new generation is worse off," he says. "Our kids have no self-identity, no sense of belonging . . . no role models. Eighty percent of [them] drop out of high school."

### Changing Population Patterns and Land Use in the Great Plains

Mechanization has reduced the number of jobs in agriculture and encouraged the consolidation of ownership. Increasingly, corporations own the farms of the Great Plains. Individuals who still farm may own several large farms in different locales. They often choose to live in cities, traveling to their farms seasonally. As a result of these trends, rural depopulation is severe. Thousands of small prairie towns are dying out. Between 1900 and 2010, two-thirds of the counties in the Great Plains lost population, with rural counties as a whole losing more than 40 percent of their population. The area now has fewer than 6 people per square mile (2 per square kilometer). Most larger cities in the region (Denver, Minneapolis, Dallas, Kansas City, Oklahoma City, Tulsa, Omaha, Des Moines) are growing because young people are leaving the small towns on the prairies.

In fact, some suggest that modern agriculture, with its high demand for water and its depletion of once fertile soils, is an environmental experiment that should end. Proponents of the "Buffalo Commons" argue that the drier parts of this region should be made into a vast nature preserve, where crops would be replaced by native grasses on which herds of American bison would graze.

These days some of the only rural Great Plains counties with increasing populations are those with significant numbers of Native Americans. In the western Great Plains, some Native Americans are returning to work in newly established gambling casinos, new ranching establishments, and other enterprises. Although still only a fraction of the total plains population, the Native American population in this region grew by 40 percent between 1990 and 2010.

### Connecting Bees, Global Corn, the Northern Plains, and Almond Groves in California

Cattle ranches and grain farms still prevail in the middle and southern plains, but in the northwestern plains, many farmers have been putting their land into the Federal Conservation Reserve program, which is aimed at stopping soil erosion and saving water by paying farmers to take land out of production.

As a consequence, the return of native grasses and wildflowers brought beekeepers and their hives to the northern plains. For some years, beekeepers "parked" their beehives in this area so that their bees could produce honey by feeding on the nectar and pollen



**Figure 2.54** Bees, almonds, and ethanol. Flowering almond trees in California are pollinated by high plains honeybees, which live in hives (the white boxes shown in the picture) that are usually trucked in from South Dakota, where they flourish among the fields of wildflowers that have sprung up on abandoned farmland. However, California's almond industry has recently been struggling to find enough bees because the fields in South Dakota are being brought back into corn production to satisfy the demand for ethanol fuel made from corn, reducing the amount of land available for wildflowers for the bees. With the wildflowers gone, bee populations will decrease rapidly. [Phil Hawkins/Bloomberg via Getty Images]

of prairie wildflowers. During a few lucrative weeks in February, when the almond groves near Fresno in the Central Valley of California are in bloom, the beekeepers truck their thousands of beehives (containing as many as a billion bees) to pollinate California's Central Valley almond flowers (Figure 2.54). California produces two-thirds of the world's almonds; without the bees to pollinate, there would be no almonds. When the almond bloom is over, the bees need to return to their Great Plains wildflower sanctuary.

Here is the problem: Since 2008, when corn became a commodity in high demand for making ethanol, producing corn-based sweeteners, and feeding the world's hungry, Great Plains farmers who had their land in the Federal Conservation Reserve suddenly could make more money putting their land back into corn. They plowed up the prairie, and the bees lost at least half of the wildflower cover on which they had previously thrived. This then threatened almond production in California.

### CHECK YOUR UNDERSTANDING

1. Why do plains farmers keep close tabs on the global commodities markets?
2. What population patterns are changing the Great Plains?
3. How are soil erosion and water depletion affecting this subregion?
4. Give an example of how landscape change in the Great Plains is connected to global demands for certain crops. How are Great Plains landscape changes impacting agricultural production elsewhere?



THE CONTINENTAL INTERIOR

Among the most striking features of the Continental Interior are its huge size, its physical diversity, and its very low population density (Figure 2.55). This is a land of extreme physical environments, characterized by rugged terrain, extreme temperatures, and lack of water (for more photos of this region, see Figures 2.3 and 2.8C). These extreme physical features restrict many economic enterprises and account for the low population density of fewer than 2 people

per square mile (1 person per square kilometer) in most parts of the region (see Figure 2.35).

Four Physical Zones

Physically, there are four distinct zones within the Continental Interior: the Canadian Shield, the frigid and rugged lands of Alaska, the Rocky Mountains, and the Great Basin. The *Canadian Shield* is a vast, glaciated territory north of the Great Plains that



**Figure 2.55** The Continental Interior subregion. **A** The Bingham Canyon open-pit copper mine is the largest human-made excavation in the world. It is 0.75 miles deep, 2.5 miles wide, and pollutes groundwater over a 75 square mile area. It has been mined for 150 years. [Ray Ng/The LIFE Images Collection/Getty Images]

today is characterized by thin or nonexistent soils, innumerable lakes, and large meandering rivers. The rugged lands of Alaska lie to the northwest of the shield. The shield and Alaska have northern coniferous (*boreal*) and subarctic (*taiga*) forests along their southern portions. Farther north, the forests give way to the **tundra**, a region of winters so long and cold that the ground is permanently frozen several feet below the surface. Shallow-rooted, ground-hugging plants such as mosses, lichens, dwarf trees, and some grasses are the only vegetation.

The Rocky Mountains stretch in a wide belt from southeastern Alaska to New Mexico. The highest areas are generally treeless, with glaciers or tundra vegetation, while forests line the rock-strewn slopes on the lower elevations. Between the Rockies and the Pacific coastal zone is the *Great Basin*, which was formed by an ancient volcanic mega-crater. It is a dry region of widely spaced mountains, covered mainly by desert scrub and occasional woodlands.

### Native Americans and Aboriginal Peoples

The Continental Interior has some of the largest populations of native people in North America, most of them living on reservations in the United States, or “reserves” as native lands are called in Canada. Because of the removal of Native Americans and Aboriginal peoples from their ancestral lands in the nineteenth century, only those who live in the tundra and northern forests of the Canadian Shield still occupy most of their original territories. The Nunavut, for example, recently won rights to their territory (part of the former Northwest Territory) after 30 years of negotiation. They are now able to hunt and fish and generally maintain the ways of their ancestors, although most of them now use snowmobiles and modern rifles. In September 2003, the Tłı̨chǫ Aboriginal people, formerly known as the Dogrib, a group of 3500, reclaimed 15,000 square miles of their land just south of the Arctic Circle. The Nunavut and the Tłı̨chǫ, who have a strong sense of cultural heritage and an entrepreneurial streak as well, have websites and manage their lives and the resources of their ancestral lands, which include oil, gas, gold, and diamonds.

### Nonindigenous Inhabitants

The Continental Interior is a fragile environment and one of the most intense battlegrounds in North America between environmentalists and resource developers.

Although much of the Continental Interior remains sparsely inhabited, nonindigenous people have settled in considerable density in a few places and now make up the vast majority of the population. Where irrigation is possible, agriculture has expanded—in Utah and Nevada; in the lowlands along the Snake and Columbia Rivers of Idaho, Oregon, and Washington; and as far north as the Peace River district in the Canadian province of Alberta (see Figure 2.47). There are many cattle and sheep ranches throughout the Great Basin. Overgrazing and erosion are problems, but more serious concerns include unsustainable groundwater extraction and pollution from chemical fertilizers. An additional pollutant is the malodorous effluent from

feedlots where large numbers of beef cattle are fattened for market. Efforts by the U.S. government to curb abuses on federal land, which is often leased to ranchers in extensive holdings, have not been very successful.

**tundra** a region of winters so long and cold that the ground is permanently frozen several feet below the surface

Increasing numbers of people are migrating to the Continental Interior. The many national parks in the region attract both seasonal and permanent workers and millions of tourists. Other people come to exploit the area's natural resources. Towns such as Laramie, Wyoming, and both Calgary and Edmonton, Alberta, have swelled with workers in the mining and fossil fuel industries. These industries often find themselves in conflict with each other and with the Native American and Aboriginal peoples of the Continental Interior.

In the United States, environmental groups have pressured the federal government to set aside more land for parks and wilderness preserves and to stop building pipelines for oil and gas transport from Alberta, Canada. Environmentalists also want to limit or eliminate activities such as mining and logging, which they see as damaging to the environment and the scenery. A switch to more recreational and preservation-oriented uses throughout the region would change, and possibly lessen, employment opportunities, while the growing numbers of visitors would place stress on natural areas, particularly on water resources.

### Federal Lands

More than half the land in the U.S. Continental Interior is federally owned. Mining and oil drilling, often on leased federal land, are by far the largest industries (see Figure 2.55A). Since the mid-nineteenth century, the region's wide range of mineral resources has supported the major cities and towns. Mineral resources link these places to the global economy, but fluctuating world market prices for minerals have resulted in alternating periods of booms and busts. In recent times, the most stable mineral enterprises have been oil-drilling operations along the northern coast of Alaska. From here, the Trans-Alaska Pipeline runs southward for 800 miles (1300 kilometers) to the Port of Valdez.

## CHECK YOUR UNDERSTANDING

1. What are the four distinct zones of the Continental Interior?
2. What are some groups that often come into conflict in this subregion?
3. What are the largest industries in the Continental Interior?

## THE PACIFIC NORTHWEST

Once a fairly isolated region, the Pacific Northwest (**Figure 2.56**) is now highly integrated into the global economy, and the focus of debates about how North America should deal with environmental and development issues. While the economy in much of this region is shifting from logging, fishing, and farming to information technology industries, attitudes about the environment are also changing. Forests that were once valued primarily for their timber are now also prized for their recreational value, especially their natural beauty and their wildlife. Energy, needed to run cities, homes, and industries, is now more than ever a crucial resource for the region.

The physical geography of this long coastal strip consists of fjords and islands, mountains and valleys. Most of the agriculture, as well as the largest cities, are located in the southern part, in a series of lowlands lying east of the long, rugged coastal mountain ranges that extend north and south. Throughout the region, the





Figure 2.56 The Pacific Northwest subregion.

climate is wet. Winds blowing in from the Pacific Ocean bring moist and relatively warm air inland, where it is pushed up over the mountains, resulting in usually copious orographic rainfall throughout the area and seasonal snowfall in the north. The close proximity of the ocean gives this region a milder climate than is found at similar latitudes farther inland. In this rainy, temperate zone, enormous trees and huge forests have flourished for eons (see Figure 2.14A). Especially in the southern parts of the subregion, the balmy climate and the spectacular scenery attract many vacationing or relocating Canadians and U.S. citizens.

### Older Extractive Industries

Pacific Northwest logging provides much of the construction lumber and an increasing amount of the paper used in North America. Lumber and wood products are also important exports to Asia, and the lumber industry is responsible directly and indirectly for hundreds of thousands of jobs in the region. As the forests shrink, environmentalists are harshly critical of the logging industry for such practices as clear-cutting (see Figure 2.14B), which destroys wild animal and plant habitats, thereby reducing species diversity and leaving the land susceptible to erosion and the remaining adjacent forests susceptible to diseases and pests. The more expensive alternative logging method of selective cutting is still highly disruptive to habitats and does not preserve forest diversity, but it is healthier for soils and maintains some diversity of fauna and flora.

Disputes also rage over how to acquire sufficient energy for the region. Large hydroelectric dams in the Pacific Northwest have attracted industries that need cheap electricity, particularly aluminum smelting and associated manufacturing industries in aerospace and defense. These industries are major employers, but their demand for labor is erratic and involves frequent periodic layoffs. In addition, another major employer in the region, the fishing industry, finds fault with hydroelectric dams because they block the seasonal migrations of salmon to and from their spawning grounds, so some of the region's most valuable fish cannot produce young. Around 40 dams have been removed to improve ecological conditions in rivers in the Pacific Northwest over the past two decades.

### Newer IT Industries

Given the environmental impacts of the logging and hydroelectric industries, it is not surprising that many people in the region are enthusiastic about the role of information technology within the major urban areas of the Pacific Northwest: San Francisco, Portland, Seattle, and Vancouver. With Silicon Valley just outside San Francisco and with a growing number of IT companies around Seattle, the Pacific Northwest is a world leader in information technology. However, IT firms produce hazardous waste such as lead and other heavy metals used in circuit boards, and they are particularly dependent on secure and steady sources of electricity—whether from water power, gas, oil, coal, or nuclear fuels—that have significant negative environmental impacts.

The Pacific Northwest has growing connections to Asia. Large-scale immigration from Asia has been underway along the Pacific Coast for many decades. Meanwhile the countries of the Pacific Rim have become major trading partners for North America. Vancouver, Seattle, Portland, and San Francisco are orienting toward Asia, not just in the trade of forest products, but in banking



and tourism and in the design and manufacture of IT equipment, much of which is outsourced to Asia.

### CHECK YOUR UNDERSTANDING

1. What industry is challenging the traditional logging, fishing, farming, and hydroelectric industries for primacy in the Pacific Northwest?
2. What part of the world is this subregion increasingly connected to via immigration, trade, and outsourcing?
3. What are some environmental impacts of IT industries?

## SOUTHERN CALIFORNIA AND THE SOUTHWEST

Southern California and the Southwest (Figure 2.57) are united primarily by long and deep cultural ties to Mexico that have intensified over the past three decades; their attractive warm, dry climate; and their increasing dependence on water from outside the region.

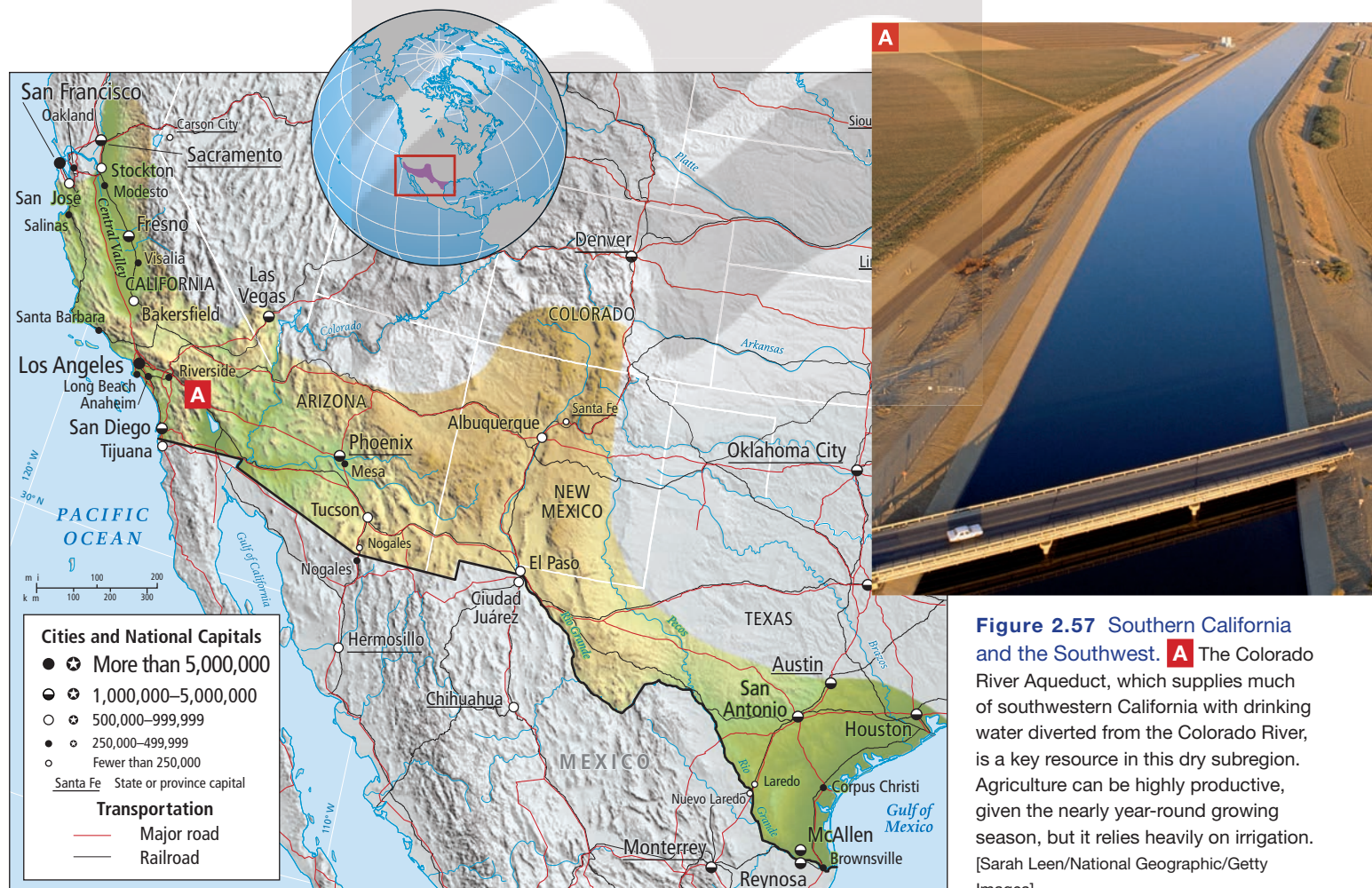
The varied landscapes of the Southwest include the Pacific coastal zone, the hills and interior valleys of Southern California, the mountains and dramatic mesas and canyons of southern Arizona and New Mexico, and the gentle coastal plain of south

Texas on the Gulf of Mexico. This region has warm average year-round temperatures and an arid climate, usually receiving less than 20 inches of rainfall annually. The natural vegetation is scrub, bunchgrass, and widely spaced trees. Ranching is the most widespread form of land use, but other forms are more important economically and in numbers of employees.

### Agriculture, Energy, Transportation, and Information Service Industries

Where irrigation is possible, farmers take advantage of the nearly year-round growing season to cultivate high-quality fruits, nuts, and vegetables. As discussed in the opening vignette of this chapter (see also Figure 2.57), California's Central Valley is a leading agricultural producer in the United States and is one of the most valuable agricultural districts in the world. Many of the crops are produced on massive, plantation-like farms. Migrant Mexican workers, often undocumented immigrants and sometimes mere children, supply most of the labor and lower the cost of North American food by working for very low wages.

Although irrigated agriculture is important, the bulk of the region's economy is nonagricultural. Information and service industries—high-tech, software, financial, and the entertainment industries—are the most profitable and employ the most people, but the coastal zones of Southern California and Texas are also home to



**Figure 2.57 Southern California and the Southwest.** **A** The Colorado River Aqueduct, which supplies much of southwestern California with drinking water diverted from the Colorado River, is a key resource in this dry subregion. Agriculture can be highly productive, given the nearly year-round growing season, but it relies heavily on irrigation. [Sarah Leen/National Geographic/Getty Images]



oil drilling, refining, and associated chemical industries, as well as other industries that need the cheap transport provided by the ocean. Los Angeles—with its major trade, transportation, media, entertainment, finance industries, and research facilities—is now the second most populous city in the United States. Like San Francisco, Seattle, and other Pacific coastal cities, Los Angeles is strategically located for trade with Pacific Rim countries and replaced New York as the largest port in the United States more than 20 years ago.

On the eastern flank of this region, Austin, Texas, has attracted IT industries, lured by research activities connected to the University of Texas, the warm climate, and the laid-back lifestyle of central Texas. Austin has over 2 million people and doubled in population between 1990 and 2010. The region as a whole draws large numbers of retirees, with entire planned communities of 10,000 and 20,000 people established in the deserts of New Mexico and Arizona yearly.

From the start of the first decade of the 2000s, residents of Southern California and the Southwest have had to worry about energy costs, congestion, smog, and water scarcity. In the case of energy, a number of factors have provoked questions about the region's environmental sustainability. Energy usage has been high, in part because of historically low energy prices. Deregulation of energy providers leads to escalating prices and corruption among some private generators and distributors, resulting in decreased energy supplies. Especially in Southern California and Arizona, people are turning to solar energy, making use of the subregion's abundant sunshine. However here, as elsewhere, much remains to be done to establish a more sustainable energy economy.

### Water: Scarcities and Disparities of Access

Increasingly scarce water is the most worrisome environmental problem in this region. Because rainfall is light and irregular, water must be imported to serve the dense urban settlements and industries, of which agriculture is the most demanding water user. Most water comes from the Colorado River, which flows naturally southwest from near Denver, through portions of Utah, Arizona, Nevada, and along the California–Arizona border, through a small part of Mexico, and on to the Gulf of California (Figure 2.58). Since the middle of the twentieth century, the water has been captured by such dams as Glen Canyon, Hoover, Davis, and Parker, and held in reservoirs, where it is used first to generate electricity.

The water is also sent through aqueducts to irrigate agriculture and supply domestic and industrial users in Phoenix and Tucson, Arizona; Las Vegas, Nevada; and the Imperial Valley and cities in Southern California (see Figure 2.57A). Recently there has been more awareness that at current rates of development, the environment of the Colorado River basin will not be able to sustain even present rates of water diversion. Control of *wastage*—water



**Figure 2.58** The Colorado River basins. The Colorado River, which flows through some of the driest land in the Continental Interior, is modified by many dams, reservoirs, and diversion canals that enable river water to supply a host of cities in the Southwest.

lost through evaporation, percolation, and leaks in canals, as well as through nonessential uses such as lawn watering—would help significantly.

Raising the cost of water to users would control its use; now it is so cheap that few take the trouble to conserve because it seems almost a free commodity. But higher user costs could seriously impact those who use the least and are the poorest. A popular saying in this region is that although water flows downhill, it flows uphill to money—to those users who are the richest and most powerful politically.

### Cultural and Economic Interests Shared with Mexico

Much of this region was originally a colony of Spain, and the area has maintained the Spanish language, a distinctive Latino culture, and other connections with Mexico. Today, the Latino culture is gaining prominence in the Southwest and spreading beyond it. As we have seen, large numbers of immigrants are arriving from Mexico, and the economies of the United States and Mexico

have become more interdependent over the past three decades of reduced trade barriers.

Among these interdependencies are the factories, known as *maquiladoras*, set up by U.S., Canadian, European, and Asian companies in Mexican towns just across the border from U.S. towns in California, Arizona, and Texas. Maquiladoras in such places as Ciudad Juárez (across from El Paso), Nuevo Laredo (across from Laredo), Nogales (across from Nogales, Arizona), and Tijuana (across from San Diego) produce manufactured goods for sale primarily in the United States and Canada. They reduce costs by taking advantage of lower wages in Mexico, cheaper land and resources, lower taxes, and weaker environmental regulations. (The maquiladora phenomenon is discussed further in Chapter 3.) These factories are a key part of a larger transborder economic network that stretches across North America.

Until fairly recently, the U.S.–Mexico border was one of the world’s most *permeable national borders*, meaning that people and goods flowed across it easily (though not without controversy). For years there were as many as 230 million legal border crossings each year through 35 points of entry. Since the terrorist attacks of 2001, the border has been made much less permeable—a high wall now runs along much of the border—and for undocumented travelers the trip has become much more dangerous. Smugglers who move workers north and illegal drugs and weapons both north and south across the more heavily guarded border charge high fees. They often cheat their passengers, trade the women and girls to sex traffickers, and in a number of cases have left

whole truckloads of people to die in the desert heat without food or water.

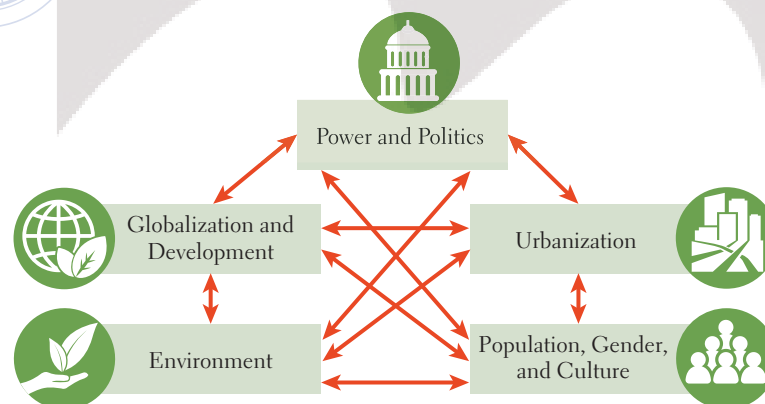
### Contentious Border Issues

As discussed earlier, several contentious issues surround the estimated 11 million undocumented immigrants currently residing in the United States, of whom perhaps 6 million are Mexican. One conflict is about language. Although English and bilingual speakers in the Southwest far outnumber those who speak only Spanish, some fear that English could be challenged in much the same way it has been challenged by French Canadians in Québec. Accordingly, Arizona in 2006 and California in 1986 made English the official language. Some bilingual programs, initiated in the 1970s to help migrant children make a smooth transition from Spanish to English, have been abolished by those who feel it is better that children learn English as quickly as possible. Scientists have found, however, that migrant children do better in math and science and have higher self-esteem if they can study for a period in their native language.

### CHECK YOUR UNDERSTANDING

1. What agricultural products does this region supply to North America?
2. What economic activities are the most profitable in this subregion?
3. Why is language an issue in this subregion?

### CRITICAL THINKING QUESTIONS



The diagram represents connections among the five geographic themes that structure this book. Listed below are some important questions that have been addressed in this chapter. Answer each question, and indicate where in the diagram you think the topics in each question belong.

1. How do the major landforms of this region influence the movement of air masses to contribute to its climatic variety?
2. How is North America’s position in the global economy linked to its environmental impact?
3. What are three ways to reduce the environmental impacts of North America’s resource consumption? Using an online ecological footprint calculator (see Chapter 1), assess your own impact. Of the three strategies for reducing environmental impacts, how many are you using?



4. How has the United States influenced international agreements to reduce GHG emissions?

5. How do historical patterns of subregional interaction within North America relate to current trends in economic development?

6. With \_\_\_\_\_ of the world's population, North America produces \_\_\_\_\_ of the world's GHG emissions, giving it the highest per capita GHG emissions of any world region.

7. In what way does North America's dominant pattern of urbanization influence its energy use?

8. What is North America's position in the global economy, and how has globalization transformed this region?

9. What are four ways in which you are connected to the global economy?

10. How is the role of the United States in the global geopolitical order linked to its position in the global economy?

11. Where are challenges to U.S. economic and political dominance coming from, and how is the United States responding to them?
12. What are the major similarities and differences between Canada and the United States in the roles each country's government plays domestically and internationally?

13. How have urban areas changed differently in the United States and Canada since World War II?

14. What role do urban areas play in the North American economy?

15. How has the changing role of women in society contributed to the aging of North American populations?


16. In what ways is North America's population distribution changing?

17. What world regions account for the majority of new immigrants to North America, and how is this influencing the racial and ethnic makeup of this region? How is this process unfolding differently in the United States and Canada?

18. Using information from this chapter, argue for or against the following statement: "Immigrants are costing taxpayers too much money."

Key Terms

|                   |                         |                      |  |
|-------------------|-------------------------|----------------------|--|
| acid rain 71      | fracking 74             | nuclear family 111   | social safety net 94                             |
| agribusiness 86   | gentrification 100      | organically grown 87 | suburbs 97                                       |
| aquifers 69       | gerrymandering 108      | Pacific Rim 103      | trade deficit 82                                 |
| brownfields 100   | housing segregation 100 | pull factors 105     | tundra 122                                       |
| clear-cutting 74  | infrastructure 77       | push factors 105     | United States–Mexico–Canada Agreement (USMCA) 81 |
| conurbation 97    | Latino 65               | redlining 100        | urban sprawl 73                                  |
| digital divide 81 | metropolitan areas 97   | smog 71              |  |
| economic core 78  |                         |                      |  |

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