The Origin and Influence of Urbanization

Essential Question: What are the processes that initiate and drive urbanization?

The permanently inhabited portion of the earth's surface—what the classical Greeks called the **ecumene**—is a variety of community types with a range of population densities. As humans increasingly settled in permanent locations, classifications of settlements emerged:

- **Rural** areas (farms and villages) with low concentrations of people
- **Urban** areas (cities) with high concentrations of people
- **Suburbs** that are primarily residential areas near cities

Factors Driving Urbanization

A **settlement** is a place with a permanent human population. The first agricultural settlements appeared around 12,000 years ago. Before that, people survived by hunting and gathering, so they lived in temporary or movable shelters. The first permanent settlements were small enough that the inhabitants could all farm and subsist on the surrounding fields. Over time, in several places around the world, small agricultural settlements began to develop characteristics that made them the first true urban settlements, or cities:

- the presence of an agricultural surplus
- the rise of social stratification and a leadership class or urban elite
- the beginning of job specialization

A food surplus became available as irrigation, farming, and domestication of animals and plants developed. These changes enabled increasing numbers of people to live in the same location. A ruling class emerged to control the products that were accumulated and the people living in the community. Because not everyone was needed to produce food, some people specialized in making things, such as tools, weapons, and art. Others specialized as accountants or religious leaders—the first members of a service sector. As a result, cities developed as economic centers of services, manufacturing, and trade.

Urbanization

The process of developing towns and cities is known as **urbanization**, an ongoing process that does not end once a city is formed. Urbanization also

involves the causes and effects of existing cities' growth. Describing a region as urbanized indicates that cities are present there. A common statistic associated with regions, countries, and even continents is **percent urban**—an indicator of the proportion of the population that lives in cities and towns as compared to those that live in rural areas.

Urbanization is one of the most important phenomena of the 19th and 20th centuries, and geographers continue to study its development. Today, more than 50 percent of the world's population lives in cities. Demographers estimate that by the year 2030, 60 percent will live in cities, and nearly 70 percent by 2050. Most of those people will be in the less-developed countries (LDCs) of the world's periphery and semiperiphery. While urbanization can be positive for both individuals and societies, the challenges may be overwhelmingif a city is not prepared to grow or if urbanization occurs too rapidly.

Influence of Site and Situation on Cities

The location of where cities develop is a critical aspect of urban geography. The concepts of site and situation, introduced in Topic 1.4, play a key role in explaining this process. **Site** describes the characteristics at the immediate location—for example, physical features, climate, labor force, and human structures. In contrast, **situation** refers to the location of a place relative to its surroundings and its connectivity to other places. Examples would include near a gold mine, on the coast, or by the railroad. Important factors of site and situation today are different than past cities.

The site and situation of a city influences its function. Specialized functions of cities include defense, religion, trade, education, finance, transportation, government, manufacturing, retirement, entertainment, residential housing, or service centers. Larger cities often have multiple functions. Cities near natural ports, such as Boston or New York City, started as centers of trade but provide multiple functions today.

Early City-States

Historically, a **city-state** consisted of an urban center (the city) and its surrounding territory and agricultural villages. A city-state had its own political system and functioned independently from other city-states. The population in the surrounding villages and territory received services and protection from the urban center. These communities were often raided by other groups for their wealth. As a result, defense was a primary consideration, and military leaders evolved into political rulers, or kings.

Early city-states emerged in several locations around the globe in an **urban hearth**, or area generally associated with defensible sites and river valleys in which seasonal floods and fertile soils allowed for an agricultural surplus:

- the Tigris-Euphrates Valley (Mesopotamia) in modern Iraq
- the Nile River Valley and Nile Delta in modern Egypt
- the Indus River Valley in modern Pakistan
- the Huang-He floodplain in modern China

Other urban centers also emerged in Mesoamerica (in modern Mexico) and in the Andean region of South America.

Examples of city-states through history include those of Classical Greece (Athens, Sparta, Corinth), those of the Middle Ages in Europe, and Venice and Italian city-states during the Renaissance. Monaco, a city-state located entirely within the boundaries of Italy, has endured to modern times. Vatican City and Singapore are also modern city-states, though they did not evolve from previous agricultural settlements, but from religious influence. City-states eventually coalesced to form early states and empires. The ancient Babylonian Empire grew from the original city-state of Babylon.

Centers for Services

As cities grew, more people developed specialized skills other than producing food. This changed the relationship between cities and the areas around them. City residents depended on farmers for food. In return, people in cities focused on supplying services for their inhabitants and the inhabitants of surrounding regions.

Early cities often specialized in particular services. Some emerged as administrative centers from which the elite ruled. Others, often associated with important shrines, became religious centers. Defensive strongholds, university towns, and centers of specialized production—located at resource sites—also emerged.

Defining Cities

Most definitions of a city describe a place with a relatively high concentration of people. Cities are places where people come together to build a nucleated, or clustered, settlement. An **urban area** is usually defined as a central city plus land developed for commercial, industrial, or residential purposes, and includes the surrounding suburbs.

Legal Definition of a City

Definitions of what constitutes a city vary greatly, but the easiest way to define a **city** is a higher-density area with territory inside officially recognized political boundaries. This definition is useful for determining the precise population, taxing residents, providing services, and establishing and enforcing laws. Most large cities today, as defined legally, share boundaries with adjacent cities, yet those boundaries are visible only on a map. On the ground, people leaving one city might have no idea they were entering another legal city.

Metropolitan Areas

A collection of adjacent cities economically connected, across which population density is high and continuous is a **metropolitan area**, sometimes called a **metro area**. Most large cities in the world today are really metro areas of a series of legally defined cities, but they are referred to using only the name of the largest city. For example, the metro area of Denver, Colorado, consists of

the cities of Denver, Aurora, Lakewood, Englewood, Greenwood Village, and other neighboring, legally defined cities.

In the United States, the term **metropolitan statistical area** (MSA) is another way to define a city. An MSA consists of a city of at least 50,000 people, the county in which it is located, and adjacent counties that have a high degree of social and economic integration, or connection, with the urban core. Similarly, **micropolitan statistical areas** are cities of more than 10,000 inhabitants (but less than 50,000), the county in which they are located, and surrounding counties with a high degree of integration. Note that this designation is really one in which a city is defined as a **nodal region**, or focal point in a matrix of connections.

Morphology, or physical characteristics, such as the buildings, streets, public places, and home, can also describe an urban area:

- The built-up area is where the landscape has a high concentration of people and structures.

- The places where built-up areas begin to give way to open spaces and underdeveloped areas are the outskirts of the city.

- This end of the continuously built-up area is often considered an urban border, whether or not it coincides with a legally defined city boundary.

THE DENVER METROPOLITAN AREA
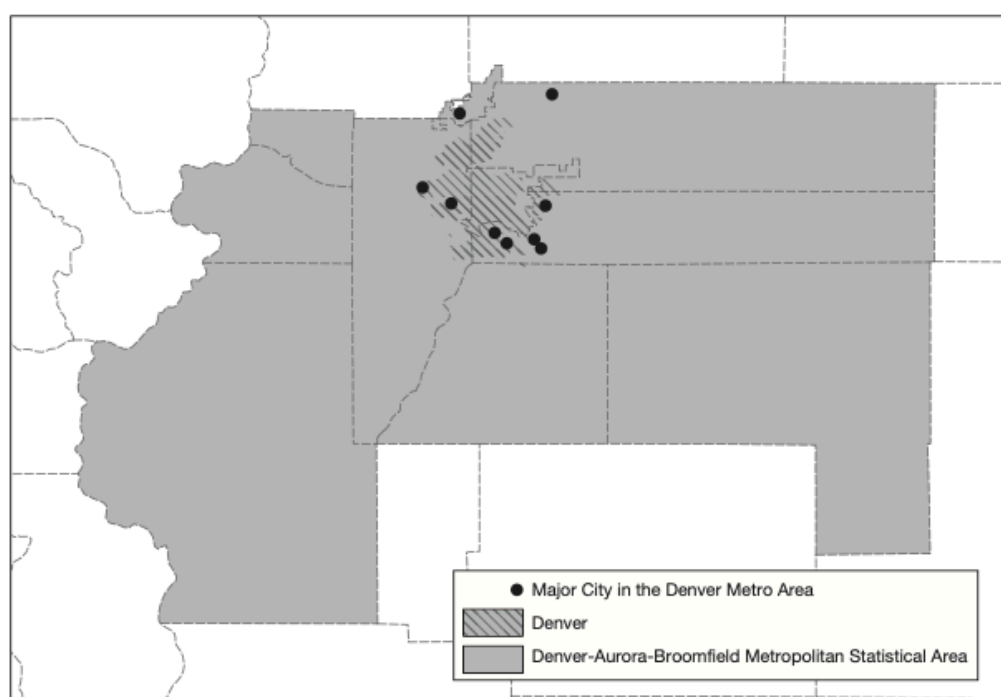
The shaded-lined area shows the metro area of Denver and includes several cities. Investigate a map of your city (or a large city near you) and attempt to define its metro area and see how it differs from the MSA.

Population Characteristics

People are drawn to urban areas often from rural areas, other regions, or other countries, looking for jobs and opportunities. For these reasons, **social heterogeneity** is particularly high in cities, meaning that the population of cities, as compared to other areas, contains a greater variety of people. Diversity in cultural interests, sexual orientations, languages spoken, professional pursuits, and other characteristics are present in cities to a much larger degree than in small towns or rural areas.

Immigration One reason cities are diverse is because they are centers of immigration. For example, in several large cities around the world, 40 percent or more of the population is foreign born. Among these are Miami and San Jose in the United States, Toronto and Vancouver in Canada, and Sydney and Melbourne in Australia.

Diversity Because of the higher population density and the relative anonymity of cities, urban residents are generally more accustomed to diversity than are people in non-urban areas. Walking through the streets of cities such as New York, London, or Amsterdam, one can see signs in numerous languages, restaurants that serve food from around the world, and buildings representing many religious traditions. Such diversity is less common in more sparsely populated areas.

One result of this diversity in cities is that it leads to more diversity. Cities have always attracted individuals with less common cultures, interests, or ways of life. They are more likely to find people whom they share traits with in cities.

Transportation and Communication

Improvements in transportation and communication have aided the growth of cities in size and number. Urban areas have expanded as trains, buses, and cars have enabled people to move farther from the center of the city, but still visit or work in the city. That change illustrates how **time-space compression** (see Topic 1.4), in the form of transportation improvements, has led to urban growth. The development of the Internet—to transport ideas rather than people—has allowed more and more people to work from home, which has increased the distance people can live from the center of a city.

Borchert's Transportation Model

Geographer John Borchert developed **Borchert's transportation model** to describe urban growth based on transportation technology. Each new form of technology produced a new system that changed how people moved themselves and goods in and between urban areas. He divided urban history into four periods, which he called epochs. Each epoch had profound effects on the local scale related to a city's form (shape), size, density, and spatial arrangement. Additionally, transportation had profound impacts on the distribution and connectivity of cities on a regional, national, and global scale. The epochs are shown in the table on the following page.

BORCHERT'S MODEL OF URBAN GROWTH		
Epoch	**Time Period**	**Conditions and Effects**
Sail-Wagon	1790–1830	• Water ports became very important. • Poor road conditions made long-distance travel between cities difficult.
Iron Horse	1830–1870	• Steam engines powered boats, which promoted the growth of river cities. • Regional rail networks connected cities. • Rail lines connected resources and industrial sites.
Steel Rail	1870–1920	• Transcontinental railways emerged. • Cities emerged along rail lines in the interior of continents.
Auto-Air-Amenity	1920–1970	• Cars allowed cities to spread out. • Airport hubs emerged. • Cities became far more interconnected.

While Borchert's model ends in 1970, it could be expanded. Since 1970, some cities have encouraged mass transit (rail lines), biking (separate bike lanes on roads and new bike paths), and walking (car-free areas in cities). Additionally, the expansion and importance of jet air travel is not fully captured in the model.

Transportation's Impact on Cities

Changes in transportation infrastructure within cities has also had important effects on the urban structure. The earliest urban centers were **pedestrian cities**, or cities shaped by the distances people could walk. A horse-and-buggy era allowed for city size to increase as people could move farther from the center and its concentration of services and jobs. Streetcar systems encouraged the movement of the population even farther from the center of a city, and growth became concentrated along the lines of these small urban rail systems. **Streetcar suburbs**, communities that grew up along rail lines, emerged, often creating a pinwheel shaped city.

The advent of the automobile had profound effects on the growth of cities. Using cars and the highways built to facilitate movement, the population of cities spread out over ever-increasing distances from the urban core. The lower density suburbs that emerged around original cities developed as separate legal cities but functioned as part of the metropolitan area focused on the central, or original city. Additionally, with the U.S. interstate highway system, cities connected to highways have situational advantages of accessibility to road networks to transport goods or services more efficiently.

Today, major cities that hope to grow economically must have access to multiple modes of national and international transportation, as well as trade networks with air travel becoming increasingly important. Individual cities will

often focus economic development policies to increase connectivity from the local to the global scale. Therefore, transportation methods have profound effects on the growth and shape of cities.

Communication Networks

Changes in communication technology have dramatic impacts on the growth and development of cities. Historically, cities connected to trade routes received information first. However, as telecommunication technology developed—with the telegraph, telephone, cell phones, and the Internet—early adopting cities benefitted.

Cities are nodal regions that require connectivity in order to thrive. New communication technologies diffused hierarchically to large cities first. In the early 2000s, cities that lagged in building new communication infrastructure fell behind cities that were on the cutting edge of technology, like Tokyo, Chicago, London, and New York City. Today, advanced communication networks are essential to attract large corporations, factories, or high-tech companies to an urban area in order to encourage further economic growth. In 2020, according to *U.S. News & World Report*, the city with the best communication network (or *smart city*) was Singapore.

Population Growth and Migration

Rural-to-urban migration is an important concept to understand the growth of cities. Population growth pressure, cultural tension, environmental strain, and lack of economic opportunities create push factors in agricultural communities. Cities promise the hope of economic opportunities and cultural freedoms. Consequently, billions of people have migrated from agricultural regions to urban areas over the past 100 years. People are attracted to more densely populated cities to obtain higher paying jobs and more government services.

Today, the most rapid rural-to-urban migration occurs in periphery and semiperiphery countries of the world, including China, India, and Brazil. The vast majority of this migration pattern occurs domestically, or within the country. For example, millions of people continue to migrate from rural northern and western Brazil to the rapidly expanding cities of Sao Paulo and Rio de Janeiro in southeast Brazil. This rapid growth has stretched resources and created challenges for cities, such as substandard housing, overcrowding, and stressed infrastructure (transportation, sanitation and water systems).

In core countries, such as the United States, rural-to-urban migration has slowed but domestic and international migration to cities in the west and south has increased. The increase is due to the perception of economic opportunity, cost of living, and quality of life in those regions. Urban areas, such as Atlanta, Tampa, and Charlotte in the South; and Denver, Dallas, and Phoenix, in the West, have experienced rapid urban population growth that has created challenges for local communities, governments, and residents. (See Topics 6.10 and 6.11.)

Economic Development and Government Policies

Increasingly, cities are viewed as engines of growth for a country's economy. Consequently, economic and political leaders, at the national and local scale, develop policies to guide and encourage the growth of cities. Cities can have a variety of different functions and economic emphases. Cities in the Midwest of the United States, such as Cleveland, Pittsburgh, and Chicago, were often focused on attracting manufacturing jobs; while cities in Florida, such as Orlando and Tampa, promoted development based on retirement and tourism. Local policies that created economic incentives, such as low-cost loans, lower taxes, or cheap available land, were used to encourage economic development. However, the economic function of a city can change over time. Today, Pittsburgh has changed its economic development policies to attract high-tech industries, such as Google and Uber, to take advantage of the highly educated students graduating from Carnegie Mellon University and the University of Pittsburgh. Within the high-income countries of the world, cities often compete with each other to attract companies and jobs.

Policies at the national scale can also impact the growth and development of cities. In 2014, China implemented the New Urbanization Plan that developed specialized cities and designated the eastern coast of the country for urbanization. The plan used a variety of methods such as tax incentives, land grants, and the creation of a series of connected cities, each with an economic focus. An example would be Shenzhen, a city near Hong Kong where the Chinese government has invested heavily in higher education and the high-tech industry to create a global financial center and its own Silicon Valley.

REFLECT ON THE ESSENTIAL QUESTION

Essential Question: *What are the processes that initiate and drive urbanization?*

Identify the Processes That Initiate and Drive Urbanization	Explain the Processes That Initiate and Drive Urbanization

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KEY TERMS

ecumene	city-state	nodal region
rural	urban hearth	social heterogeneity
urban	urban area	time-space compression
suburbs	city	Borchert's transportation
settlement	metropolitan area (metro	model
urbanization	area)	pedestrian cities
percent urban	metropolitan statistical area	streetcar suburbs
site	(MSA)	
situation	micropolitan statistical area	

Cities Across the World

Essential Question: What are the processes that initiate and drive urbanization and suburbanization?

The process of urbanization and suburbanization appears differently on the cultural landscape in different regions of the world. In North America after World War II, changes in transportation, demographics, and the economy dramatically changed how cities developed. In the periphery and semi-periphery, rapid population growth of cities has affected how geographers classify and study the urban areas of the world.

Suburbanization

A suburb is a largely residential area adjacent to an urban area. **Suburbanization** involves the process of people moving, usually from cities, to residential areas on the outskirts of cities. There, they form communities that are connected to the city for jobs and services. However, suburbs are often less-densely populated and less-ethnically diverse than inner cities.

Causes of Suburbanization

Several causes contributed to the growing suburbanization in North America after World War II. Among these were economic expansion, greater purchasing power for many families, the growth of a car-centered lifestyle, and the government's construction of a vast system of new highways that allowed workers to commute from their city jobs to suburban homes. In the United States, the Federal Housing Administration provided mortgage loans for families to move to the suburbs, which were newly zoned for single-family housing.

Racial tensions provided another impetus for suburban growth. As African Americans came to the North in search of jobs and better education during and after World War II, many White Americans moved to the suburbs in what became known as "White flight." Continued government investment in suburban growth, along with a lack of investment in inner cities, hastened both urban decline and suburban growth. Industries and jobs left the cities, and residents followed. In addition, highways were sometimes built in locations that uprooted or divided existing urban communities.

Shifting Trends

The process of suburbanization is one effect of urban growth. In the developed world, especially North America, it has been the most prominent change in

urban areas since the middle of the 20th century. In 1960, the U.S. population was roughly equally divided with about 60 million people living in each of the three types of areas—urban, suburban, and rural. According to the Pew Institute, in 2016, 55 percent (175 million) of Americans lived in suburban counties, 31 percent (98 million) in urban, and 14 percent (46 million) in rural counties. Suburbs are now the dominant form of residential living in the United States.

As economic and residential activities continue to decentralize into the suburbs, cities spread out horizontally, creating a sprawling landscape. **Sprawl** is the rapid expansion of the spatial extent of a city and occurs for numerous reasons:

- growth of suburbs
- lower land costs in suburbs compared to inner cities
- lower density single family housing
- weak planning laws
- the continuing growth of car culture

In the United States, sprawl is most common in fast-growing areas in the Southeast and West. A specific process that encourages sprawl is **leap-frog development**, where developers purchase land and build communities beyond the periphery of the city's built area. As a result of sprawl, the urban footprint of American cities, such as Atlanta, grew larger than those of more populated cities in other regions of the world. Atlanta now covers over 8,300 square miles and contains 6 million people. In contrast, cities in other parts of the world are much smaller in physical size. For example, Mexico City is 580 square miles but contains over 21 million people, resulting in a much more compact and densely populated city.

New Forms of Land Use

As a result of the suburbanization process, new land-use forms have been created. **Boomburbs,** or boomburgs, are rapidly growing communities (over 10 percent per 10 years), have a total population of over 100,000 people, and are not the largest city in the metro area. This type of community develops differently than a traditional city and usually do not have a dense urban center. Examples include Mesa, Arizona; Plano, Texas; and Riverside, California.

Another new land use is found near key locations along transportation routes that has mini downtowns of hotels, malls, restaurants, and office complexes. Modern geographers have dubbed these **edge cities,** which are nodes of economic activity that have developed in the periphery of large cities. They usually have tall office buildings, a concentration of retail shops, relatively few residences, and are located at the junction of major transportation routes.

While cities are the destination for many of the world's migrants, the counter-flow of urban residents leaving cities is known as **counter-urbanization** or **deurbanization**. Many of these migrants are relocating to **exurbs,** the prosperous residential districts beyond the suburbs. Contributing to exurbanism is the ability of people to work remotely via technology, which

removes the need to commute. Other factors include relative affordability of land in these areas and cultural preferences. These *exurbs* tend to have expansive lots and large single-family homes. People who live in these areas want tranquility and privacy while still having connections to an urban center.

Suburbanization has affected rural areas by increasing population density, building homes and businesses on former farmlands, and adding new residents from urban backgrounds to communities. However, suburbanization itself is currently changing in North America, as some suburbanites return to live in the city, in a process called **reurbanization**.

POPULATION CHANGE IN NEW YORK CITY AND ITS SUBURBS
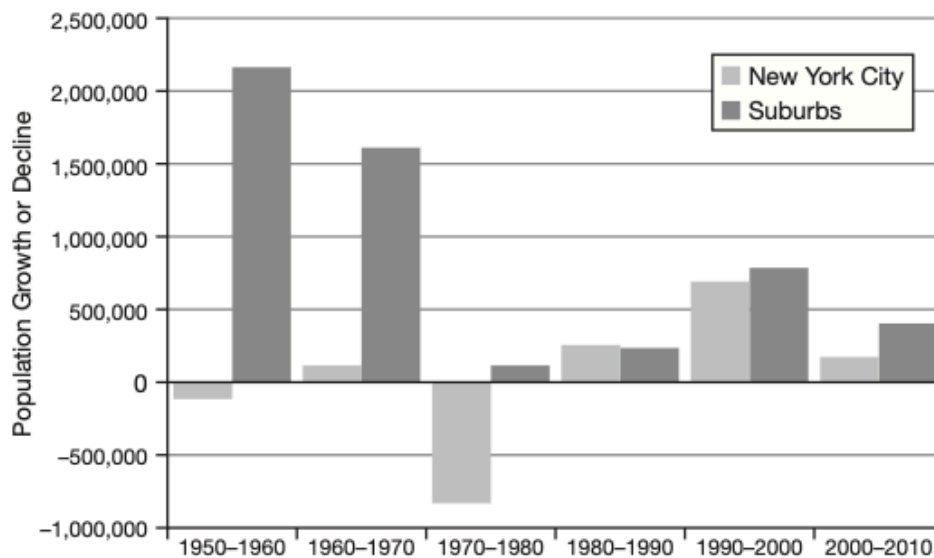
Source: Adapted from Wendell Cox, "The Accelerating Suburbanization of New York." New Geography, 2011.

The graph of city and suburb growth in New York illustrates the massive growth of suburbs after World War II as well as the later process of reurbanization.

Megacities and Metacities

Megacities and metacities are the world's largest cities. **Megacities** have a population of more than 10 million people. Because of the rapid growth of cities in the 21st century a new type of city has emerged—the metacity. **Metacities**, sometimes called hypercities, are defined in two ways:

- continuous urban area with a population greater than 20 million people
- attributes of a network of urban areas that have grown together to form a larger interconnected urban system

These urban giants can spread across political borders and exert an influence that is felt regionally, and even worldwide. This influence is due to the size of their populations, but in other cases, their influence is derived from the city's political, economic, and cultural power. The world's first and largest metacity is Tokyo, Japan, with a current population of over 37 million. New York City is the tenth largest with just over 20 million people. An emerging metacity near Shenzhen, China, is predicted to exceed 120 million people by 2050.

Megalopolis

The term **megalopolis** goes back to the early 1900s and describes a chain of connected cities. It became more common after 1961, when French geographer Jean Gottman used it to describe the continuously developed string of cities from Boston—through New York City, Philadelphia, and Baltimore—to Washington, DC. The "Bos-Wash Corridor" now includes nearly 50 million residents.

These cities had grown until they essentially merged into a single **conurbation**, an uninterrupted urban area made of towns, suburbs, and cities. The cities crossed state boundaries and exceeded the definition of a metropolitan area, which is focused on a single, urban center. Gottman noted that, although legally the major cities remained separate, they and their suburbs had become a single region that had taken on some characteristics of a single, massive city.

Since that time, with urban growth increasing across the planet, other cities have combined into megalopolises. The corridor in California from San Diego through Los Angeles to San Francisco is a single, growing metropolitan corridor on the West Coast of the United States. Tokyo through Yokohama is a megalopolis in Japan.

Urbanization in the Developing World

Megacities were once found at only the centers of large empires or the most powerful countries. However, that pattern has changed. In the past century, megacities have become more common in less-developed countries because of high birth rates and increased rural-to-urban migration. Of the 20 largest urban areas in the world in 2020, 15 were in semiperiphery or periphery countries.

WORLD'S LARGEST URBAN AREAS, 2020
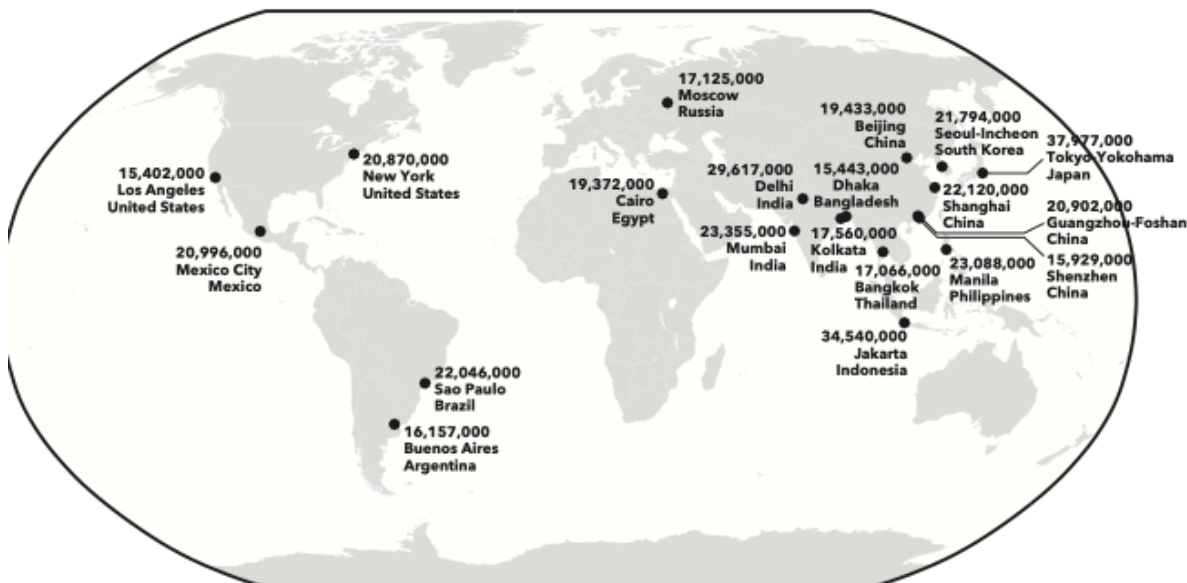
Megacities in relatively poor countries face the same challenges as megacities in wealthy countries, but without as many resources to respond. Social problems between ethnic groups, joblessness, lack of infrastructure, inadequate housing, and environmental problems—such as Mexico City's severe air pollution—are common in all megacities.

REFLECT ON THE ESSENTIAL QUESTION

Essential Question: *What are the processes that initiate and drive urbanization and suburbanization?*

Processes That Influence Urbanization and Suburbanization	Effects of Those Processes

KEY TERMS

suburbanization	exurbs
sprawl	reurbanization
leap-frog development	megacities
boomburbs	metacities
edge cities	megalopolis
counter-urbanization (deurbanization)	conurbation

Cities and Globalization

Essential Question: How do cities influence the processes of globalization?

Cities are becoming increasingly larger in population and physical size, as well as the economic engine of the global economy. The influence of cities is an important area of study for geographers. An analysis of the influence of urban systems is critical to understand the concepts of world cities and urban hierarchy.

World Cities

The world's largest cities are not always the most influential. Cities such as New York, London, Tokyo, and Paris are **world cities**, or **global cities**, that exert influence far beyond their national boundaries. All are currently media hubs and financial centers with influential stock exchanges, banks, and corporate headquarters. Many are the headquarters of international organizations. For example, New York is home to the United Nations. World cities are the control centers for the global economy where key decisions about products, manufacturing, banking, cultural trends, marketing and information originate.

Researchers rank a city's influence based on its financial power, innovation, academic resources, cultural influence, livability, connectivity, accessibility, and political influence. The top 10 world cities in 2020 according to the Global Power City Index are shown in the map below.

TOP 10 WORLD CITIES, 2020
(Based on the Global Power Index)

6. Amsterdam Netherlands
1. London England
7. Berlin Germany
8. Seoul South Korea
4. Paris France
2. New York City United States
10. Shanghai China
3. Tokyo Japan
9. Hong Kong
5. Singapore

Source: Mori Memorial Foundation

The decisions made by leaders in world cities impact all people, even those in a rural areas or small towns. World cities are the most powerful of all urban centers and drive globalization. These influential cities are very interconnected via transportation and communication networks. Leaders of world cities typically wield political power on a national and international scale that rivals the power of leaders of entire countries.

Connectivity and Urban Hierarchy

Cities at all scales of geography do not function in isolation, rather they are a part of a larger urban system. Systems of cities have an **urban hierarchy,** or ranking, based on influence or population size. (See Topic 6.4.) For a city to be influential, it must have *connectivity*, or be connected to regional, national, and global networks. World cities operate on a global scale but also have connectivity to smaller cities within a country's urban system.

Nodal cities are command centers on a regional and occassionally national level. Cities like Denver, Phoenix, or Minneapolis are not as influential as world cities but possess significant power within a region of the country. These cities will have some corporate headquarters and numerous regional offices for transnational companies, while they also serve as major entertainment, cultural, and economic centers within their regions. In order to maintain global connectivity, these cities have developed road systems, large airports, and advanced communication networks that connect to smaller cities in their regions and to world cities, such as New York, Chicago, or Los Angeles.

Cities specializing in certain functions are another level of the urban hierarchy. Examples include Austin, Texas (government); Las Vegas, Nevada (entertainment); Elkhart, Indiana (manufacturing); and Norfolk, Virginia (military).

REFLECT ON THE ESSENTIAL QUESTION

Essential Question: *How do cities influence the processes of globalization?*

Characteristics of Cities	Global Influence of Characteristic

KEY TERMS

world cities (global cities)	urban hierarchy	nodal cities