Urban Patterns

Suppose as a geography class assignment you were dropped off on a street corner in a very large city and told to meet your instructor and classmates in 1 hour at city hall. How would you find it? In a small town you could simply ask for directions, but in an unfamiliar neighborhood of a large city would you hesitate to ask strangers?

Your destination is probably downtown, because that's where public services such as city hall cluster. Which direction is downtown? The skyscrapers far in the distance are probably a clue, and house numbers on major streets get lower as you head toward downtown.

In a small town everything is within easy walking distance, but in a large city your destination is too far to walk. How would you get there without a car? Hitchhiking is too dangerous, and you don't have enough money to hire a taxi. What about the bus? Where does the bus stop? What route does it follow? How much is the fare? Do you have the exact change or a pre-paid fare card, as required on most big-city buses?

Once on the bus, you sit down next to another passenger. Is your neighbor of the same ethnicity as you? In fact, are you the only person on the bus of your ethnicity? Have you been in other large groups where you were the only person of your ethnicity? Do the other passengers smile at you and chat, or do they mind their own business?

A large city is stimulating and exciting, entertaining and frightening, welcoming and cold. A city has something for everyone, but a lot of those things are for people who are different from you. Urban geography helps to sort out the complexities of familiar and unfamiliar patterns in urban areas.

KEY ISSUES

1. Where have urban areas grown?
2. Where are people distributed within urban areas?
3. Why do inner cities have distinctive problems?
4. Why do suburbs have distinctive problems?
CASE STUDY

Two Families in New Jersey

Ruth Merritt lives in the city of Camden, New Jersey. She is a 24-year-old single parent with three children (ages 7, 2, and 1). Her income, derived from the community’s program of child support, is $250 per month. That works out to $3,000 a year.

The Merritt family lives in a four-room apartment in a row house that was divided some years ago into six dwelling units. The apartment has generally adequate plumbing and kitchen facilities, but the residents sometimes see rats in the building. The rent is $75 per month, plus an average of $50 per month for electricity and other utilities. Ruth Merritt receives food stamps, but her monthly expenses for food, clothing, and shelter exceed her income. In cold weather she must sometimes reduce the food budget to pay for heat.

Just 10 kilometers away, east of Camden, the Johnson family lives in Cherry Hill, New Jersey. William Johnson is a lawyer. He commutes to downtown Philadelphia, across the Delaware River from Camden. Diane Johnson works for a nonprofit organization with offices in the suburban community where they live. Their two children attend a recently built school in the community.

The Johnson family’s dwelling is a detached house with three bedrooms, a living room, dining room, family room, and kitchen. The attached garage contains two cars, one for each parent to get to work. The half-acre lawn surrounding the house provides ample space for the children to play. The Johnsons bought their house ten years ago for $250,000. The monthly payments for mortgage and utilities are $3,000, but the family’s combined annual income of $200,000 is more than adequate to pay the housing costs. The house is now worth a half-million dollars.

The Merritt and Johnson households illustrate the contrasts that exist today in U.S. urban areas. As you have seen throughout this book, dramatic differences in material standards exist around the world. However, the picture drawn here is based on families living in the same urban area, only a few kilometers apart.

Were these examples taken from an urban area elsewhere in the world, the spatial patterns might be reversed. In most of the world the higher-status Johnsons would live near the center of the city, whereas the lower-status Merritts would live in the suburbs.

When you stand at the corner of Fifth Avenue and 34th Street in New York City, staring up at the Empire State Building, you know that you are in a city. When you are standing in an Iowa cornfield, you have no doubt that you are in the country. Geographers help explain what makes city and countryside different places.

Urban geographers are interested in the where question at two scales. First, geographers examine the global distribution of urban settlements. Having a high percentage of people living in urban areas is a distinctive feature of life in more developed countries (MDCs), a consequence of the shift from an agricultural to a manufacturing and, later, to a services economy.

Geographers are also interested in where people and activities are distributed within urban spaces. Models have been developed to explain why differences occur within urban areas. The major physical, social, and economic contrasts are between inner-city and suburban areas.

We all experience the interplay between globalization and local diversity of urban settlements. If you were transported to the downtown of another city, you might be able to recognize the city from its skyline. Many downtowns have a collection of high-rise buildings, towers, and landmarks that are identifiable even to people who have never visited them.

On the other hand, if you were transported to a suburban residential neighborhood, you would have difficulty identifying the urban area. Suburban houses, streets, schools, and shopping centers look very much alike from one American city to another.

In more developed regions, people are increasingly likely to live in suburbs. This changing structure of cities is a response to conflicting desires. People wish to spread across the landscape to avoid urban problems, but at the same time, they want convenient connections to the city’s jobs, shops, culture, and recreation.

In this chapter, the causes and consequences of today’s evolving urban patterns are examined. Although different internal structures characterize urban areas in the United States and elsewhere, the problems arising from current spatial trends are similar. Geographers describe where different types of people live and try to explain the reasons for the observed patterns.
KEY ISSUE 1

Where Have Urban Areas Grown?

- Urbanization
- Defining urban settlements

As recently as 1800, only 3 percent of Earth’s population lived in cities; and only one city in the world—Beijing—had more than 1 million inhabitants. Two centuries later one-half of the world’s people live in cities, and more than 400 of them have at least 1 million inhabitants. This rapid growth has made it difficult to define the extent of cities.

Urbanization

The process by which the population of cities grows, known as urbanization, has two dimensions—an increase in the number of people living in cities and an increase in the percentage of people living in cities. The distinction between the two factors is important, because they occur for different reasons and have different global distributions.

Increasing Percentage of People in Cities

The percentage of people living in cities increased from 3 percent in 1800 to 6 percent in 1850, 14 percent in 1900, 30 percent in 1950, and 47 percent in 2000. The population of urban settlements is estimated to exceed that of rural settlements for the first time in human history in 2008.

A large percentage of people living in urban areas is a measure of a country’s level of development. In MDCs, about three-fourths of the people live in urban areas, compared to about two-fifths in less-developed countries (LDCs) (Figure 13–1). The major exception to the global pattern is Latin America, where the urban percentage is comparable to the level of MDCs.

The higher percentage of urban residents in MDCs is a consequence of changes in economic structure during the past two centuries—first the Industrial Revolution in the nineteenth century and then the growth of services in the twentieth. The world map of percent urban looks very much like the world map of percentage of GDP derived from services (refer to Figure 12–1).

The percentage of urban dwellers is high in MDCs because over the past 200 years rural residents have migrated from the countryside to work in the factories and services that are concentrated in cities. The need for fewer farmworkers has pushed people out of rural areas, and rising employment opportunities in manufacturing and services have lured them into urban areas. Because everyone resides either in an urban settlement or a rural settlement, an increase in the percentage living in urban areas has produced a corresponding decrease in the percentage living in rural areas.

In MDCs the process of urbanization that began around 1800 has largely ended, because the percentage living in urban areas simply cannot increase much more. Nearly everyone interested in migrating from rural to urban areas has already done so, leaving those who choose to live in rural areas. We can now speak of MDCs as being fully urbanized, because the percentage of urban residents is so high.

The percentage living in cities has risen rapidly in recent years in LDCs because of the migration of rural residents to the cities in search of jobs in manufacturing or services. As in MDCs, people in LDCs are pushed off the farms by declining opportunities. However, urban jobs are by no means assured in LDCs experiencing rapid overall population growth.

FIGURE 13–1 Percent living in urban areas. More developed countries have a higher percentage of people living in urban areas.
FIGURE 13-2. Cities having a population of 3 million or more. The proportion of urban dwellers is greater in more developed countries (MDCs). However, the largest urban areas are now mostly in less developed countries (LDCs). Rapid city growth in LDCs reflects increasing overall population, plus migration from rural areas.

Increasing Number of People in Cities

MDCs have a higher percentage of urban residents, but LDCs have more of the very large urban settlements (Figure 13-2). Eight of the ten most populous cities are currently in LDCs—Buenos Aires, Delhi, Dhaka, Jakarta, Kolkata (Calcutta), Mexico City, Mumbai (Bombay), and São Paulo. New York and Tokyo are the two in MDCs. Some lists show Cairo, Manila, Seoul, and Shanghai among the top ten, all in LDCs. Two other urban areas in MDCs—Los Angeles and Osaka—may also rank in the top ten, depending on definition, but if so they would soon be surpassed by faster growing LDC cities.

That urban areas in LDCs dominate both lists of largest urban areas is remarkable, because urban growth historically has resulted from diffusion of the Industrial Revolution. As the Industrial Revolution began to diffuse from Great Britain to Western Europe in 1800, only three of the world's ten most populous cities were in Europe—London, Paris, and Naples—and the remainder were in Asia. But in 1900, nine of the world's
Defining Urban Settlements

Defining where urban areas end and rural areas begin is difficult. Lack of agreement among authoritative sources on the world’s ten most populous cities reflects how difficult it is to delineate the boundary between urban and rural. Geographers and other social scientists have formulated definitions that distinguish between urban and rural areas according to social and physical factors.

Social Differences Between Urban and Rural Settlements

A century ago, social scientists observed striking differences between urban and rural residents. Louis Wirth argued during the 1930s that an urban dweller follows a different way of life than does a rural dweller. Thus Wirth defined a city as a permanent settlement that has three characteristics—large size, high population density, and socially heterogeneous people. These
characteristics produced differences in the social behavior of urban and rural residents.

**LARGE SIZE.** If you live in a rural settlement, you know most of the other inhabitants and may even be related to many of them. The people with whom you relax are probably the same ones you see in local shops and at church.

In contrast, if you live in an urban settlement, you can know only a small percentage of the other residents. You meet most of them in specific roles—your supervisor, your lawyer, your supermarket cashier, your electrician. Most of these relationships are contractual: you are paid wages according to a contract, and you pay others for goods and services. Consequently, the large size of an urban settlement influences different social relationships than those formed in rural settlements.

**HIGH DENSITY.** High density also produces social consequences for urban residents, according to Wirth. The only way that a large number of people can be supported in a small area is through specialization. Each person in an urban settlement plays a special role or performs a specific task to allow the complex urban system to function smoothly.

At the same time, high density also encourages people to compete for survival in limited space. Social groups compete to occupy the same territory, and the stronger group dominates. This behavior distinguishes an urban settlement from a rural one.

**SOCIAL HETEROGENEITY.** The larger the settlement, the greater the variety of people. A person has greater freedom in an urban settlement than in a rural settlement to pursue an unusual profession, sexual orientation, or cultural interest. In a rural settlement, unusual actions might be noticed and scorned, but urban residents are more tolerant of diverse social behavior. Regardless of values and preferences, in a large urban settlement individuals can find people with similar interests.

Yet despite the freedom and independence of an urban settlement, people may also feel lonely and isolated. Residents of a crowded urban settlement often feel that they are surrounded by people who are indifferent and reserved.

Wirth's three-part distinction between urban and rural settlements may still apply in LDCs. But in more developed societies, social distinctions between urban and rural residents have blurred. According to Wirth's definition, nearly everyone in a developed society now is urban. All but 1 percent of workers in developed societies hold "urban" types of jobs. Nearly universal ownership of automobiles, telephones, televisions, and other modern communications and transportation has also reduced the differences between urban and rural lifestyles in more developed societies. Almost regardless of where you live in the United States, you have access to urban jobs, services, culture, and recreation. So geographers look for physical definitions to distinguish between urban and rural areas.

### Physical Definitions of Urban Settlements

Historically, physical differences between urban and rural settlements were easy to define, because cities were surrounded by walls. The removal of walls and the rapid territorial expansion of cities have blurred the traditional physical differences. Urban settlements today can be physically defined in three ways—by legal boundary, as continuously built-up area, and as a functional area.

**LEGAL DEFINITION OF A CITY.** The term **city** defines an urban settlement that has been legally incorporated into an independent, self-governing unit. Virtually all countries have a local government system that recognizes cities as legal entities with fixed boundaries. A city has locally elected officials, the ability to raise taxes, and responsibility for providing essential services. The boundaries of the city define the geographic area within which the local government has legal authority. In the United States, a city surrounded by suburbs is sometimes called a **central city**.

**URBANIZED AREA.** With the rapid growth of urban settlements, many urban residents live in suburbs, beyond the boundaries of the central city. In the United States, the central city and the surrounding built-up suburbs are called an **urbanized area**. More precisely, an urbanized area consists of a central city plus its contiguous built-up suburbs where population density exceeds 1,000 persons per square mile (400 persons per square kilometer). Approximately 70 percent of the U.S. population live in urbanized areas, including about 30 percent in central cities and 40 percent in surrounding jurisdictions.

Working with urbanized areas is difficult because few statistics are available about them. Most data in the United States and other countries are collected for cities, counties, and other local government units, but urbanized areas do not correspond to government boundaries.

**METROPOLITAN STATISTICAL AREA.** The urbanized area also has limited applicability because it does not accurately reflect the full influence that an urban settlement has in contemporary society. The area of influence of a city extends beyond legal boundaries and adjacent built-up jurisdictions. For example, commuters may travel a long distance to work and shop in the city or built-up suburbs. People in a wide area watch the city's television stations, read the city's newspapers, and support the city's sports teams. Therefore, we need another definition of urban settlement to account for its more extensive zone of influence (Figure 13–3).

The U.S. Bureau of the Census has created a method of measuring the functional area of a city, known as the **metropolitan statistical area (MSA)**. An MSA includes the following:

1. An urbanized area with a population of at least 50,000.
2. The county within which the city is located.
3. Adjacent counties with a high population density and a large percentage of residents working in the central city's county (e.g., a county with a density of 25 persons per square mile and at least 50 percent working in the central city's county).

Studies of metropolitan areas in the United States are usually based on information about MSAs. The MSAs are widely used because many statistics are published for counties, the basic MSA building block (Figure 13–3). The census designated 362 MSAs in 2003, encompassing 83 percent of the U.S. population. Older studies may refer to SMSAs, or standard metropolitan statistical areas, which the census used before 1983 to designate metropolitan areas in a manner similar to MSAs.
An MSA is not the perfect tool for measuring the functional area of a city. One problem is that some MSAs include extensive land area that is not urban. For example, Great Smoky Mountains National Park is partly in the Knoxville, Tennessee, MSA; Sequoia National Park is in the Visalia–Porterville, California, MSA. The MSAs comprise some 20 percent of total U.S. land area, compared to only 2 percent for urbanized areas. The urbanized area typically occupies only 10 percent of an MSA land area but contains nearly 90 percent of its population.

The census has also designated smaller urban areas as **micropolitan statistical areas**. These include an urbanized area of between 10,000 and 50,000 inhabitants, the county in which it is found, and adjacent counties tied to the city. The United States had 560 micropolitan statistical areas in 2003, for the most part found around southern and western communities previously considered rural in character. About 10 percent of Americans live in a micropolitan statistical area.

**OVERLAPPING METROPOLITAN AREAS.** Some adjacent MSAs overlap. A county between two central cities may send a large number of commuters to jobs in each. In the northeastern United States, large metropolitan areas are so close together that they now form one continuous urban complex, extending from north of Boston to south of Washington, D.C. Geographer Jean Gottmann named this region Megalopolis, a Greek word meaning “great city”; others have called it the Boswash corridor (Figure 13–4).

Other continuous urban complexes exist in the United States—the southern Great Lakes between Chicago and Milwaukee on the west and Pittsburgh on the east, and southern California from Los Angeles to Tijuana. Among important examples in other MDCs are the German Ruhr (including the cities of Dortmund, Düsseldorf, and Essen), Randstad in the Netherlands (including the cities of Amsterdam, the Hague, and Rotterdam), and Japan’s Tokaido (including the cities of Tokyo and Yokohama).

Within Megalopolis, the downtown areas of individual cities such as Baltimore, New York, and Philadelphia retain distinctive identities, and the urban areas are visibly separated from each other by open space used as parks, military bases, and dairy or truck farms. But at the periphery of the urban areas, the boundaries overlap. Washingtonians visit the Inner Harbor in downtown Baltimore, and Baltimoreans attend major-league hockey and basketball games in downtown Washington.

Once considered two separate areas, Washington and Baltimore were combined into a single metropolitan statistical area after the 1990 census. However, that combination did not
do justice to the distinctive character of the two cities, so the Census Bureau again divided them into two separate MSAs after the 2000 census. In other cases, the Census Bureau divided other MSAs into two or more metropolitan divisions. For example, Dallas and Fort Worth—long combined into one MSA—are now split into two metropolitan divisions.

**KEY ISSUE 2**

Where Are People Distributed Within Urban Areas?

- Three models of urban structure
- Use of the models outside North America

People are not distributed randomly within an urban area. They concentrate in particular neighborhoods, depending on their social characteristics. Geographers describe where people with particular characteristics are likely to live within an urban area, and they offer explanations for why these patterns occur.

**Three Models of Urban Structure**

Sociologists, economists, and geographers have developed three models to help explain where different types of people tend to live in an urban area—the concentric zone, sector, and multiple nuclei models. The three models describing the internal social structure of cities were developed in Chicago, a city on a prairie.

Except for Lake Michigan to the east, few physical features have interrupted the region’s growth. Chicago includes a central business district (CBD) known as the Loop, because elevated railway lines loop around it. Surrounding the Loop are residential suburbs to the south, west, and north. The three models were later applied to cities elsewhere in the United States and in other countries.

**Concentric Zone Model**

The concentric zone model was the first to explain the distribution of different social groups within urban areas. It was created in 1923 by sociologist E. W. Burgess. According to the **concentric zone model**, a city grows outward from a central area in a series of concentric rings, like the growth rings of a tree. The precise size and width of the rings vary from one city to another, but the same basic types of rings appear in all cities in the same order (Figure 13–5).

The innermost of the five zones is the CBD, where nonresidential activities are concentrated. The CBD is surrounded by the second ring, the zone in transition, which contains industry and poorer-quality housing. Immigrants to the city first live in this zone in small dwelling units, frequently created by subdividing larger houses into apartments. The zone also contains rooming houses for single individuals.

The third ring, the zone of working-class homes, contains modest older houses occupied by stable, working-class families. The fourth zone has newer and more spacious houses for middle-class families. Finally, Burgess identified a commuters’ zone, beyond the continuous built-up area of the city. Some people who work in the center nonetheless choose to live in small villages that have become dormitory towns for commuters.
Sector Model

A second theory of urban structure, the sector model, was developed in 1939 by land economist Homer Hoyt (Figure 13-6). According to Hoyt, the city develops in a series of sectors, not rings. Certain areas of the city are more attractive for various activities, originally because of an environmental factor or even by mere chance. As a city grows, activities expand outward in a wedge, or sector, from the center. Once a district with high-class housing is established, the most expensive new housing is built on the outer edge of that district, farther out from the center. The best housing is therefore found in a corridor extending from downtown to the outer edge of the city. Industrial and retailing activities develop in other sectors, usually along good transportation lines.

To some extent the sector model is a refinement of the concentric zone model rather than a radical restatement. Hoyt mapped the highest-rent areas for a number of U.S. cities at different times and showed that the highest social-class district usually remained in the same sector, although it moved farther out along that sector over time.

Hoyt and Burgess both claimed that social patterns in Chicago supported their model. According to Burgess, Chicago’s CBD was surrounded by a series of rings, broken only by Lake Michigan on the east. Hoyt argued that the best housing in Chicago developed north from the CBD along Lake Michigan, whereas industry located along major rail lines and roads to the south, southwest, and northwest.

Multiple Nuclei Model

Geographers C. D. Harris and E. L. Ullman developed the multiple nuclei model in 1945. According to the multiple nuclei model, a city is a complex structure that includes more than one center around which activities revolve. Examples of these nodes include a port, neighborhood business center, university, airport, and park (Figure 13-7).
The multiple nuclei theory states that some activities are attracted to particular nodes, whereas others try to avoid them. For example, a university node may attract well-educated residents, pizzerias, and bookstores whereas an airport may attract hotels and warehouses. On the other hand, incompatible land-use activities will avoid clustering in the same locations. Heavy industry and high-class housing, for example, rarely exist in the same neighborhood.

Geographic Applications of the Models

The three models help us understand where people with different social characteristics tend to live within an urban area. They can also help to explain why certain types of people tend to live in particular places.

Effective use of the models depends on the availability of data at the scale of individual neighborhoods. In the United States and many other countries, that information comes from a national census. Urban areas in the United States are divided into census tracts that contain approximately 5,000 residents and correspond, where possible, to neighborhood boundaries. Every decade the U.S. Bureau of the Census publishes data summarizing the characteristics of the residents living in each tract. Examples of information the bureau publishes include the number of nonwhites, the median income of all families, and the percentage of adults who finished high school.

SOCIAL AREA ANALYSIS. The spatial distribution of any of these social characteristics can be plotted on a map of the community’s census tracts. Computers have become invaluable in this task, because they permit rapid creation of maps and storage of voluminous data about each census tract. Social scientists can compare the distributions of characteristics and create an overall picture of where various types of people tend to live. This kind of study is known as social area analysis.

None of the three models taken individually completely explain why different types of people live in distinctive parts of the city. Critics point out that the models are too simple and fail to consider the variety of reasons that lead people to select particular residential locations. Because the three models are all based on conditions that existed in U.S. cities between the two world wars, critics also question their relevance to contemporary urban patterns in the United States or in other countries.

But if the models are combined rather than considered independently, they help geographers explain where different types of people live in a city. People tend to reside in certain locations depending on their particular personal characteristics. This does not mean that everyone with the same characteristics must live in the same neighborhood, but the models say that most people prefer to live near others who have similar characteristics:

- Consider two families with the same income and ethnic background. One family owns its home, whereas the other rents. The concentric zone model suggests that the owner-occupant is much more likely to live in an outer ring and the renter in an inner ring (Figure 13–8).
- The sector theory suggests that given two families who own their homes, the family with the higher income will not live in the same sector of the city as the family with the lower income (Figure 13–9).
- The multiple nuclei theory suggests that people with the same ethnic or racial background are likely to live near each other (Figure 13–10).

Putting the three models together, we can identify, for example, the neighborhood in which a high-income, Asian American owner-occupant is most likely to live (see Contemporary Geographic Tools box).
Use of the Models Outside North America

The three models may describe the spatial distribution of social classes in the United States, but American urban areas differ from those elsewhere in the world. These differences do not invalidate the models, but they do point out that social groups in other countries may not have the same reasons for selecting particular neighborhoods within their cities.

European Cities

As in the United States, wealthier people in European cities cluster along a sector extending out from the CBD. In Paris, for example, the wealthy moved to the southwestern hills to be near the royal palace (the Louvre beginning in the twelfth century, and the Palace of Versailles from the sixteenth century until the French Revolution in 1789). The preference of the wealthy to cluster in the southwest was reinforced in the nineteenth century during the Industrial Revolution. Factories were built to the south, east, and north along the Seine and Marne River valleys, but relatively few were built on the southwestern hills. Similar upper-class sectors developed in other European cities, typically on higher elevation and near royal palaces.

However, in contrast to most U.S. cities, wealthy Europeans still live in the inner rings of the upper-class sector, not just in the suburbs. A central location provides proximity to the region’s best shops, restaurants, cafés, and cultural facilities.

FIGURE 13-9 Example of sector model in Indianapolis, the distribution of high-income households. The median household income is the highest in a sector to the north, which extends beyond the city limits to the adjacent county.

FIGURE 13-10 Example of multiple nuclei model in Indianapolis, the distribution of minorities. The African American concentration consists of census tracts that are 90 percent or more African American. The other groups are clustered in tracts that contain at least 5 percent of the total Indianapolis population of that ethnic group.
Marketing geographers identify sectors, rings, and nodes that come closest to matching customers preferred by a retailer. Companies use this information to understand, locate, and reach their customers better. They use it to determine where to put new stores and where advertising should appear.

Segmentation is the process of partitioning into groups of potential customers with similar needs and characteristics who are likely to exhibit similar purchasing behavior. A prominent example of geographic segmentation is the Potential Rating Index for Zip Markets (Prizm) clusters created by Claritas Corp. As Claritas states, "birds of a feather flock together"—in other words, a person is likely to live near people who are similar.

Claritas combines two types of geographic information—distribution of the social and economic characteristics of people obtained from the census and the addresses of purchasers of various products obtained from service providers. The variables are organized into 66 clusters that are given picturesque names. For each zip code in the United States, Claritas determines the five clusters that are most prevalent. Claritas calls this analysis "you are where you live."

We can compare Prizm clusters for two zip codes in the Indianapolis area. Refer to Figure 13–8, Figure 13–9, and Figure 13–10 to see the close relationship between the Claritas Prizm clusters and the models of urban structure.

The five most common clusters in zip code 46240 on the outer north side of Indianapolis (in alphabetical order) are as follows:

- **Gray Power** (older middle-class couples, with $50,222 income, especially likely to shop at Lord & Taylor, belong to a veterans' club, watch Senior Open golf and Masterpiece Theater, and drive a Buick)
- **New Beginnings** (young singles, with $30,477 income, especially likely to live in an apartment, go to the movies frequently, read Jet and WWE Magazine, watch Jerry Springer, and drive a Kia)
- **New Empty Nests** (upscale, recently retired couples, with $67,261 income, especially likely to take cruises, contribute to PBS, read Tennis magazine, watch Washington Week, and drive a Cadillac)
- **Upper Crust** (wealthy empty nesters, with $106,364 income, especially likely to travel abroad, shop at Bloomingdale’s, read Atlantic Monthly, watch the Golf Channel, and drive a Jaguar)
- **Young Influentials** (yuppies, with $46,866 income, especially likely to play racquetball, buy rap music, read Vibe, watch King of the Hill, and drive a Mazda)

Compare the above to the five most common Prizm clusters in zip code 46218 on the inner east side of Indianapolis:

- **American Dreams** (ethnic minorities, with $51,850 income, who are especially likely to go ice skating or sailing, read the Sunday newspaper and Ebony, and drive a Lexus)
- **City Roots** (older ethnic minorities, with $26,471 income, who are especially likely to live in an older home, watch daytime TV and Face the Nation, travel to Latin America, read Essence, and drive a Hyundai)
- **Close-In Couples** (older African Americans, with $38,613 income, who are especially likely to live in an older home, shop at Macy’s, eat at Dennys, watch the Sunday newspaper, watch People’s Court, and drive a Suzuki)
- **Multi-Culti Ethnic** (recent immigrants, with $33,833 income, who are especially likely to go to professional basketball games, buy Spanish-language music, read Jet, watch Jerry Springer, and drive a Nissan)
- **Suburban Pioneers** (unmarried Hispanics, with $33,229 income, who are especially likely to live in apartments, eat fast food, do needlepoint, read Baby Talk, watch King of the Hill, and drive a Suzuki)

Wealthy people are also attracted by the opportunity to occupy elegant residences in carefully restored, beautiful old buildings. By living in high-density, centrally located townhouses and apartments, wealthy people in Europe do not have large private yards and must go to public parks for open space. To meet the desire for large tracts of privately owned land, some wealthy Europeans purchase abandoned farm buildings in clustered rural settlements for use as second homes on weekends and holidays. Some of the worst traffic jams in Paris occur on summer Sunday nights, when families return from their weekend homes. A trip from the weekend home to the city that normally takes an hour can consume 4 hours on a Sunday night.

In the past, low-income people also lived in the center of European cities. Before the invention of electricity in the nineteenth century, social segregation was vertical: wealthier people lived on the first or second floors, whereas poorer people occupied the dark, dank basements, or they climbed many flights of stairs to reach the attics. As the city expanded during the Industrial Revolution, housing for these people was constructed in sectors near the factories and away from the wealthy.

Today, low-income people are less likely to live in European inner-city neighborhoods. Poor-quality housing has been renovated for wealthy people or demolished and replaced by offices or luxury apartment buildings. Building and zoning codes prohibit anyone from living in basements, and upper floors are attractive to wealthy individuals once elevators are installed.

People with lower incomes have been relegated to the outskirts of European cities (Figure 13–11). Vast suburbs containing dozens of high-rise apartment buildings house these people who were displaced from the inner city. European suburban residents face the prospect of long commutes by public transportation to reach jobs and other downtown amenities. Shops, schools, and other services are worse than in inner neighborhoods, and the suburbs are centers for crime, violence, and drug dealing. Because the housing is mostly in high-rise buildings, people lack large private yards. Many residents of these dreary suburbs are persons of color or recent immigrants from Africa or Asia who face discrimination and prejudice by "native" Europeans.

European officials encouraged the construction of high-density suburbs to help preserve the countryside from development and to avoid the inefficient sprawl that characterizes American
suburbs, as discussed in the last section of this chapter. And tourists are attracted to the historic, lively centers of European cities. But these policies have resulted in the clustering of people with social and economic problems in remote suburbs rarely seen by wealthier individuals.

**Less Developed Countries**

In LDCs, as in Europe, the poor are accommodated in the suburbs, whereas the wealthy live near the center of cities, as well as in a sector extending from the center. The similarity between European and LDC cities is not a coincidence: past European Colonial policies have left a heavy mark on the development of cities in many LDCs. Most cities in LDCs have passed through three stages of development—before European colonization, during the European Colonial period, and since independence.

**PRECOLONIAL CITIES.** Before the Europeans established colonies, few cities existed in Africa, Asia, and Latin America, and most people lived in rural settlements. The principal cities in Latin America were located in Mexico and the Andean highlands of northwestern South America. In Africa, cities could be found along the western coast, Egypt's Nile River valley, and Islamic empires in the north and east (as well as in Southwest Asia). Cities were also built in South and East Asia, especially in India, China, and Japan.

Cities were often laid out surrounding a religious core, such as a mosque in Muslim regions. The center of Islamic cities also had a bazaar or marketplace, which served as the commercial core. Government buildings and the homes of wealthy families surrounded the mosque and bazaar. Narrow, winding streets led from the core to other quarters. Families with less wealth and lower status located farther from the core, and recent migrants to the city lived on the edge.

Commercial activities were arranged in a concentric and hierarchical pattern: Higher-status businesses directly related to religious practices (such as selling religious books, incense, and candles) were located closest to the mosque. In the next ring were secular businesses, such as leather works, tailors, rug shops, and jewelers. Food products were sold in the next ring, then came blacksmiths, basket makers, and potters. A quarter would be reserved for Jews, a second for Christians, and a third for foreigners.

When the Aztecs founded Mexico City—which they called Tenochtitlán—the settlement consisted of a small temple and a few huts of thatch and mud. The Aztecs first settled west of present-day downtown Mexico City on a hill known as Chapultepec ("the hill of the grasshopper") but were forced by other people to leave the hill. They migrated a few kilometers south, near the present-day site of the University of Mexico, and then in 1325 to a marshy 10-square-kilometer (4-square-mile) island in Lake Texcoco (Figure 13–12).

Over the next two centuries the Aztecs conquered the neighboring peoples and extended their control through much of present-day Mexico. As their wealth and power grew, Tenochtitlán grew to a population of a half-million.

The Aztecs built elaborate stone houses and temples in Tenochtitlán. The node of religious life was the Great Temple, a massive multicolor structure containing two shrines—one for the rain god (painted blue) and one for the god of war (painted blood red). The main market center, Tlatelolco, was located at the north end of the island.

Most food, merchandise, and building materials crossed from the mainland to the island by canoe, barge, or other boat. The island was laced with canals to facilitate pickup and delivery of people and goods. Three causeways with drawbridges linked...
Tenochtitlán to the mainland and also helped to control flooding. An aqueduct brought fresh water from Chapultepec.

**COLONIAL CITIES.** When Europeans gained control of Africa, Asia, and Latin America, they expanded existing cities to provide colonial services, such as administration, military command, and international trade, as well as housing for Europeans who settled in the colony. Existing native towns were either left to one side or demolished because they were totally at variance with European ideas.

Fès (Fez), Morocco, consists of two separate and distinct towns—one that existed before the French gained control and one built by the French colonialists (Figure 13–13). Similarly, the British built New Delhi near the existing city of Delhi, India. On the other hand, the French Colonial city of Saigon, Vietnam (now Ho Chi Minh City), was built by completely demolishing the existing city without leaving a trace (Figure 13–14).

Compared to the existing cities, the European districts typically contain wider streets and public squares, larger houses surrounded by gardens, and much lower density. In contrast, the old quarters have narrow, winding streets, little open space, and cramped residences.

Colonial cities followed standardized plans. All Spanish cities in Latin America, for example, were built according to the Laws of the Indies, drafted in 1573. The laws explicitly outlined how colonial cities were to be constructed—a gridiron street plan centered on a church and central plaza, walls around individual houses, and neighborhoods built around central, smaller plazas with parish churches or monasteries.

For example, after the Spanish conquered Tenochtitlán in 1521 after a 2-year siege, they destroyed the city and dispersed or killed most of the inhabitants. The city, renamed Mexico City, was rebuilt around a main square, called the Zócalo, in the center of the island, on the site of the Aztecs' sacred precinct. The Spanish reconstructed the streets in a grid pattern extending from the Zócalo. A Roman Catholic cathedral was built on the north side of the square, near the site of the demolished Great Temple, and the National Palace was erected on the east side, on the site of the Aztec emperor Moctezuma’s destroyed palace. The Spanish placed a church and monastery on the site of the Tlatelolco market.
CITIES SINCE INDEPENDENCE. Following independence, cities have become the focal points of change in LDCs. Millions of people have migrated to the cities in search of work.

Geographers Ernest Griffin and Larry Ford show that in Latin American cities wealthy people push out from the center in a well-defined elite residential sector. The elite sector forms on either side of a narrow spine that contains offices, shops, and amenities attractive to wealthy people, such as restaurants, theaters, parks, and zoos (Figure 13-15). The wealthy are also attracted to the center and spine, because services such as water and electricity are more readily available and reliable.

For example, in Rio de Janeiro, Brazil, people with high incomes are clustered in the center of the city and to the south, whereas people with low incomes reside in the northern suburbs (Figure 13-16), left. The distribution of income groups coincides with other social characteristics, such as the percent of households with a telephone, automobile, or television. High-income groups are clustered near the center in part because of greater access to services, such as electricity and city sewers (Figure 13-16, right).

Physical geography also influences the distribution of social classes within Rio. The original site of the city was along the west shore of Guanabara Bay, a protected harbor. Residents were attracted to the neighborhoods immediately south of the...
central area, such as Copacabana and Ipanema, to enjoy spectacular views of the Atlantic Ocean and access to beaches. On the other hand, low-income households have clustered along the northern edge of the city, where steep mountains have restricted construction of other types of buildings. Development on the eastern side of Guanabara Bay was restricted until a bridge was constructed in the 1970s.

In Mexico City, emperor Maximilian (1864–67) designed a 14-lane tree-lined boulevard patterned after the Champs-Elysées in Paris. The boulevard (now known as the Paseo de la Reforma) extended 3 kilometers southwest from the center to Chapultepec.

The Reforma between downtown and Chapultepec became the spine of an elite sector. The wealthy built pretentious palacios (palaces) along the Reforma during the late nineteenth century. Physical factors influenced the movement of wealthy people toward the west along the Reforma. Because elevation was higher than elsewhere in the city, sewage flowed eastward and northward away from Chapultepec.

Most of Lake Texcoco was drained by a gigantic canal and tunnel project in 1903, allowing the city to expand to the north and east. However, the lakebed was a less desirable residential location than the west side, because prevailing winds from the northeast stirred up dust storms from the dried-up lakebed. As Mexico City’s population grew rapidly during the twentieth century, the social patterns inherited from the nineteenth century were reinforced.

**Squatter Settlements.** The LDCs are unable to house the rapidly growing number of poor people. Their cities are growing because of overall population increase and migration from rural areas for job opportunities. Because of the housing shortage, a large percentage of poor immigrants to urban areas in LDCs live in squatter settlements.

*Squatter settlements* are known by a variety of names, including barrios, barriadas, and *favelas* in Latin America, *bidonvilles* in North Africa, *bustees* in India, *gecekondu* in Turkey, *kampungs* in Malaysia, and *barang-barang* in the Philippines. The United Nations estimated that 175 million people worldwide lived in squatter settlements in 2003, an increase from 100 million in 2000.

Squatter settlements have few services, because neither the city nor the residents can afford them. Latrines are usually designated by the settlement’s leaders, and water is carried from a central well or dispensed from a truck. The settlements generally lack schools, paved roads, telephones, or sewers. Electricity service may be stolen by running a wire from the nearest power line.
In the absence of bus service or available private cars, a resident may have to walk 2 hours to reach a place of employment.

At first, squatters do little more than camp on the land or sleep in the street. In severe weather, they may take shelter in markets and warehouses. Families then erect primitive shelters with scavenged cardboard, wood boxes, sackcloth, and crushed beverage cans. As they find new bits of material, they add them to their shacks. After a few years they may build a tin roof and partition the space into rooms, and the structure acquires a more permanent appearance.

To improve their housing conditions, squatters have two basic choices: one is to move illegally into better-quality, vacant housing close to the center of the city; the second is to rent slum housing legally from a landlord. Squatters rarely have the financial means to move directly from a squatter settlement into decent housing on legally owned land.

The percentage of people living in squatter settlements, slums, and other illegal housing ranges from 33 percent in São Paulo, Brazil, to 85 percent in Addis Ababa, Ethiopia, according to a UN study. The United Nations estimates that more than half of the residents live in some form of illegal housing in Lusaka, Zambia; Ankara, Turkey; Bogotá, Colombia; Dar es Salaam, Tanzania; and Luanda, Angola.

**KEY ISSUE 3**

**Why Do Inner Cities Have Distinctive Problems?**

- Inner-city physical problems
- Inner-city social problems
- Inner-city economic problems

Most of the land in urban areas is devoted to residences, where people live. Within U.S. urban areas, the most fundamental spatial distinction is between inner-city residential neighborhoods that surround the CBD and suburban residential neighborhoods on the periphery. Inner cities in the United States contain concentrations of low income people who face a variety of physical, social, and economic problems very different from those faced by suburban residents.

**Inner-City Physical Problems**

The major physical problem faced by inner-city neighborhoods is the poor condition of the housing, most of which was built before 1940. Deteriorated housing can either be demolished and replaced with new housing, or it can be rehabilitated.

**Process of Deterioration**

As the number of low-income residents increase in the city, the territory they occupy expands. Neighborhoods can shift from predominantly middle-class to low-income occupants within a few years. Middle-class families move out of a neighborhood to newer housing farther from the center and sell or rent their houses to lower-income families.

**FILTERING.** Large houses built by wealthy families in the nineteenth century are subdivided by absentee landlords into smaller dwellings for low-income families. This process of subdivision of houses and occupancy by successive waves of lower-income people is known as filtering. The ultimate result of filtering may be abandonment of the dwelling.

Like a car, clothing, or any other object, the better a house is maintained, the longer it will last. Landlords stop maintaining houses when the rent they collect becomes less than the maintenance cost. In such a case, the building soon deteriorates and grows unfit for occupancy. Not even the poorest families will rent the dwelling. At this point in the filtering process the owner may abandon the property, because the rents that can be collected are less than the costs of taxes and upkeep.

Cities have codes that require owners to maintain houses in good condition. But governments that aggressively go after landlords to repair deteriorated properties may in fact hasten abandonment, because landlords will not spend money on repairs that they are unable to recoup in rents. Thousands of vacant houses stand in the inner areas of U.S. cities because the landlords have abandoned them.

One hundred years ago low-income inner-city neighborhoods in the United States teemed with throngs of recent immigrants from Europe. These inner-city neighborhoods that housed perhaps 100,000 a century ago contain less than 10,000 inhabitants today. Schools and shops close because they are no longer needed in inner-city neighborhoods with rapidly declining populations. Through the filtering process, many low-income families have moved to less deteriorated houses farther from the center.

**REDLINING.** Some banks engage in redlining—drawing lines on a map to identify areas in which they will refuse to loan money. As a result of redlining, families who try to fix up houses in the area have difficulty borrowing money. Although redlining is illegal, enforcement of laws against it is frequently difficult.

The Community Reinvestment Act requires U.S. banks to document by census tract where they make loans. A bank must demonstrate that inner-city neighborhoods within its service area receive a fair share of its loans.

**Urban Renewal**

North American and European cities have demolished much of their substandard inner-city housing through urban renewal programs. Under urban renewal, cities identify blighted inner-city neighborhoods, acquire the properties from private owners, relocate the residents and businesses, clear the site, and build new roads and utilities. The land is then turned over to private developers or to public agencies, such as the board of education or the parks department, to construct new buildings or services. National government grants help cities pay for urban renewal.

**PUBLIC HOUSING.** Many substandard inner-city houses have been demolished and replaced with public housing. In the