

## 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 10 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*.

Chapter 12 and this chapter are both concerned with urban geography, but at different *scales*. The previous chapter examined the distribution of urban settlements at national and global scales. This chapter looks at *where* people and activities are distributed within urban *spaces*. Models have been developed to explain *why* differences occur within urban 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 *regions* of MDCs, 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

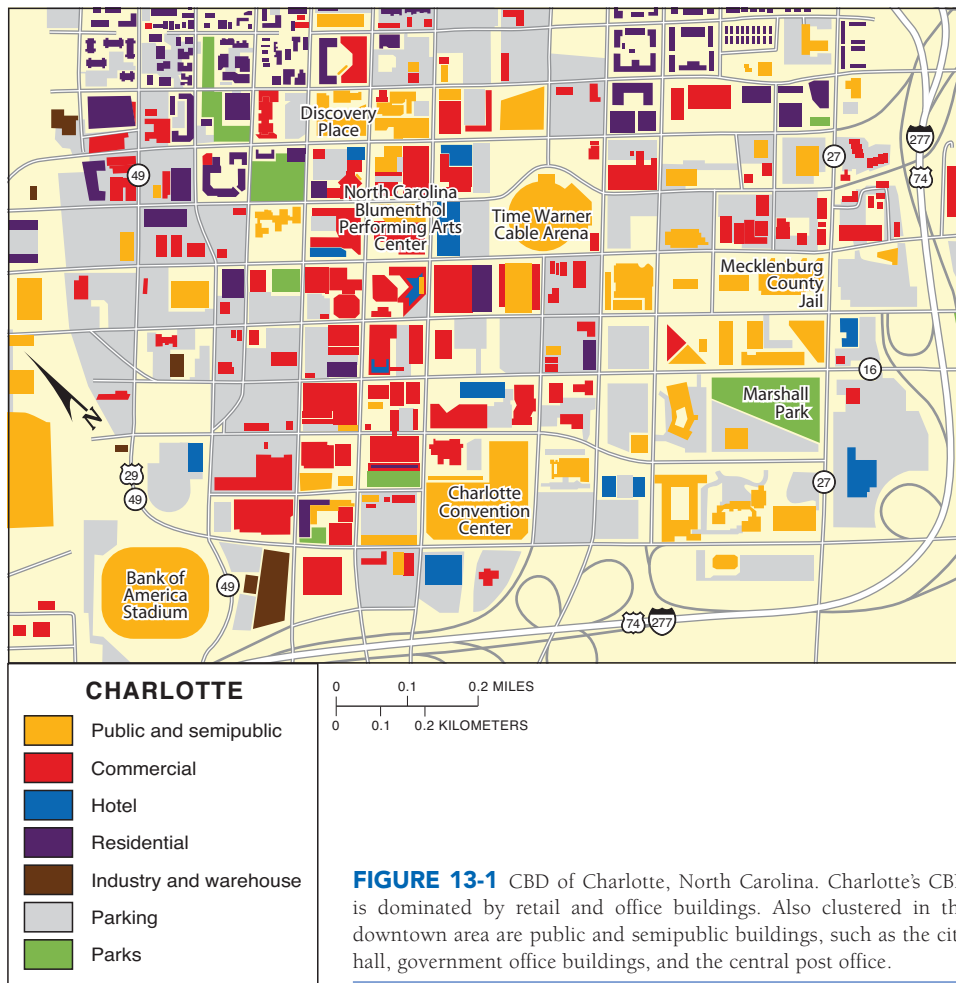
## Why Do Services Cluster Downtown?

- CBD Land Uses
- Competition for Land in the CBD
- CBDs Outside North America

Downtown is the best-known and the most visually distinctive area of most cities. It is usually one of the oldest districts in a city, often the site of the original settlement. The downtowns of most North American cities have different features than those in the rest of the world. ■

### CBD Land Uses

Downtown is known to geographers by the more precise term **central business district (CBD)**. The CBD is compact—less than 1 percent of the urban land area—but contains a large percentage



**FIGURE 13-1** CBD of Charlotte, North Carolina. Charlotte's CBD is dominated by retail and office buildings. Also clustered in the downtown area are public and semipublic buildings, such as the city hall, government office buildings, and the central post office.

of the shops, offices, and public institutions (Figure 13-1). Consumer and business services are attracted to the CBD because of its accessibility. The center is the easiest part of the city to reach from the rest of the region and is the focal point of the region's transportation network.

## Retail Services in the CBD

In the past, three types of retail services clustered in the CBD because they required accessibility to everyone in the region—retailers with a high threshold, those with a long range, and those that served people who worked in the CBD. Changing shopping habits and residential patterns have reduced the importance of retail services in the CBD.

**RETAILERS WITH A HIGH THRESHOLD.** Retailers with high thresholds, such as department stores, traditionally preferred a CBD location in order to be accessible to many people (Figure 13-2). Large department stores in the CBD would cluster near one intersection, which was known as the “100 percent corner.” Rents were highest there because this location had the highest accessibility for the most customers.

In recent years, however, many high-threshold shops such as large department stores have closed their downtown branches. CBDs that once boasted three or four stores now have none, or perhaps one struggling survivor. The customers for downtown department stores now consist of downtown office workers, inner-city residents, and tourists. Department stores with high thresholds are now more likely to be in suburban malls.

## RETAILERS WITH A HIGH RANGE.

High-range retailers are often specialists, with customers who patronize them infrequently (Figure 13-3). These retailers once preferred CBD locations because their customers were scattered over a wide area. For example, a jewelry or clothing store attracted shoppers from all over the urban area, but each customer visited infrequently.

Like those with high thresholds, high-range retailers have moved with department stores to suburban locations. These retailers survive in some CBDs if they combine retailing with recreational activities. People are willing to make a special trip to a specific destination downtown for unusual shops in a dramatic setting, perhaps a central atrium with a fountain or a view of a harbor. New shopping areas that attract high-range retailers have been built in several North American CBDs:

- Boston: Faneuil Hall Marketplace, in renovated eighteenth-century buildings
- Baltimore: Harbor Place, built in the Inner Harbor, adjacent to waterfront museums, tourist attractions, hotels, and cultural facilities
- Philadelphia: Gallery at Market East, a suburban-style shopping center
- San Francisco Ferry Building: a gourmet food center where San Francisco Bay ferries dock

These downtown malls attract suburban shoppers as well as out-of-town tourists because in addition to shops they offer unique recreation and entertainment experiences.

Some CBDs have restored their food markets, with individual stalls operated by different merchants. They may have a high range because they attract customers who willingly travel far to find more exotic or higher-quality products. At the same time, inner-city residents may use these markets for their weekly grocery shopping.

**RETAILERS SERVING DOWNTOWN WORKERS.** A third type of retail activity in the center serves the many people



**FIGURE 13-2** CBD retailer with high threshold. Shoppers flock to Macy's in Midtown Manhattan the day after Thanksgiving.

who work in the center and shop during lunch or working hours. These businesses sell office supplies, computers, and clothing, or offer shoe repair, rapid photocopying, dry cleaning, and so on. In contrast to the other two types of retailers, shops that appeal to nearby office workers are expanding in the CBD, in part because the number of downtown office workers has increased and in part because downtown offices require more services.

Patrons of downtown shops tend increasingly to be downtown employees who shop during the lunch hour. Thus, although the total volume of sales in downtown areas has been stable, the pattern of demand has changed. Large department stores have difficulty attracting their old customers, whereas smaller shops that cater to the special needs of the downtown labor force are expanding.

## Business Services in the CBD

Offices cluster in the center for accessibility. People in such business services as advertising, banking, finance, journalism, and law particularly depend on proximity to professional colleagues. Lawyers, for example, choose locations near government offices and courts. Services such as temporary secretarial agencies and instant printers locate downtown to be near lawyers, forming a chain of interdependency that continues to draw offices to the center city.

Despite the diffusion of modern telecommunications, many professionals still exchange information with colleagues primarily through face-to-face contact. Financial analysts discuss attractive stocks or impending corporate takeovers. Lawyers meet to settle disputes out of court. Offices are centrally located to facilitate rapid communication of fast-breaking news through spatial proximity. Face-to-face contact also helps to establish a

relationship of trust based on shared professional values.

A central location also helps businesses that employ workers from a variety of neighborhoods. Top executives may live in one neighborhood, junior executives in another, secretaries in another, and custodians in still another. Only a central location is readily accessible to all groups. Firms that need highly specialized employees are more likely to find them in the central area, perhaps currently working for another company downtown.

## Competition for Land in the CBD

The center's accessibility produces extreme competition for the limited sites available. As a result, land values are very high in the CBD, and it is too expensive for some activities.

## High Land Costs

In a rural area a hectare of land might cost several thousand dollars. In a suburb it might run tens of thousands of dollars. In a large CBD like New York or London, if a hectare of land were even available, it would cost tens of millions of dollars. Tokyo's CBD contains some of Earth's most expensive land, around \$15,000 per square meter (\$60,000,000 per acre). If this page were a parcel of land in Tokyo, it would sell for \$1,000. Before the 2008 recession, prices were even higher.

Tokyo's high prices result from a severe shortage of buildable land. Buildings in most areas are legally restricted to less than 10 meters in height (normally three stories) for fear of earthquakes, even though recent earthquakes have demonstrated that modern, well-built skyscrapers are safer than older three-story structures. Two distinctive characteristics of the CBD follow from the high land cost. First, land is used more intensively in the center than elsewhere in the city. Second, some activities are excluded from the center because of the high cost of space.

**INTENSIVE LAND USE.** The intensive demand for space has given the CBD a three-dimensional character, pushing it vertically. Compared to other parts of the city, the CBD uses more space below and above ground level.

A vast underground network exists beneath most central cities. The typical "underground city" includes multistory parking garages, loading docks for deliveries to offices and shops, and utility lines (water, sewer, phone, electric, and some heating). Typically, telephone, electric, and cable television wires run beneath the surface in central areas. Not enough space is available in the center for the large number of telephone poles that would be needed for such a dense network, and the wires are unsightly and hazardous. Subways run beneath the streets of



**FIGURE 13-3** CBD retailer with high range. Pike Place Market in downtown Seattle sells food at individually owned stalls.

larger CBDs. And cities such as Minneapolis, Montreal, and Toronto have built extensive pedestrian passages and shops beneath the center. These underground areas segregate pedestrians from motor vehicles and shield them from harsh winter weather.

**SKYSCRAPERS.** Demand for space in the CBD has also made high-rise structures economically feasible. Downtown skyscrapers give a city one of its most distinctive images and unifying symbols. Suburban houses, shopping malls, and factories look much the same from one city to another, but each city has a unique downtown skyline, resulting from the particular arrangement and architectural styles of its high-rise buildings.

The first skyscrapers were built in Chicago in the 1880s, made possible by two inventions—the elevator and iron-frame building construction. The first high-rises caused great inconvenience to neighboring structures because they blocked light and air movement. Artificial lighting, ventilation, central

heating, and air-conditioning have helped solve these problems. Most North American and European cities enacted zoning ordinances early in the twentieth century in part to control the location and height of skyscrapers.

Skyscrapers are an interesting example of “vertical geography.” The nature of an activity influences which floor it occupies in a typical high-rise:

- Retailers pay high rents for street-level space to entice customers.
- Professional offices, less dependent on walk-in trade, occupy the middle levels at lower rents.
- Apartments in the upper floors take advantage of lower noise levels and panoramic views.

The one large U.S. CBD without skyscrapers is Washington, D.C., where no building is allowed to be higher than the U.S. Capitol dome. Consequently, offices in downtown Washington rise no more than 13 stories. As a result, the typical Washington office building uses more horizontal space—land area—than in other cities. Thus the city’s CBD spreads over a much wider area than those in comparable cities.

## Activities Excluded from the CBD

High rents and land shortage discourage two principal activities in the CBD—industrial and residential.

**LACK OF INDUSTRY IN THE CBD.** Modern factories require large parcels of land to spread operations among one-story buildings. Suitable land is generally available in suburbs. In the past, inner-city factories and retail establishments relied on waterfront CBDs that were once lined with piers for cargo ships to load and unload and warehouses to store the goods. Today’s large oceangoing vessels are unable to maneuver in the tight, shallow waters of the old CBD harbors. Consequently, port activities have moved to more modern facilities downstream.

Port cities have transformed their waterfronts from industry to commercial and recreational activities. Derelict warehouses and rotting piers have been replaced with new offices, shops, parks, and museums. As a result, CBD waterfronts have become major tourist attractions in a number of North American cities, including Boston, Toronto, Baltimore, and San Francisco, as well as in European cities such as Barcelona and London. The cities took the lead in clearing the sites and constructing new parks, docks, walkways, museums, and parking lots. They also have built large convention centers to house professional meetings and trade shows. Private developers have added hotels, restaurants, boutiques, and entertainment centers to accommodate tourists and conventioners.

**LACK OF RESIDENTS IN CBDs.** Many people used to live downtown. Poorer people jammed into tiny, overcrowded apartments, and richer people built mansions downtown. In the twentieth century, most residents abandoned downtown living because of a combination of pull and push factors. They were pulled to suburbs that offered larger homes with private

yards and modern schools. And they were pushed from CBDs by high rents that business and retail services were willing to pay and by the dirt, crime, congestion, and poverty that they experienced by living downtown.

In the twenty-first century, however, the population of many U.S. CBDs has increased. New apartment buildings and townhouses have been constructed, and abandoned warehouses and outdated office buildings have been converted into residential lofts. Downtown living is especially attractive to people without school-age children, either “empty nesters” whose children have left home or young professionals who have not yet had children. These two groups are attracted by the entertainment, restaurants, museums, and nightlife that are clustered downtown, and they are not worried about the quality of neighborhood schools.

## CBDs Outside North America

CBDs outside the United States are less dominated by commercial considerations. The most prominent structures may be churches and former royal palaces, situated on the most important public squares, at road junctions, or on hilltops. Parks in the center of European cities often were first laid out as private gardens for aristocratic families and later were opened to the public.

European cities display a legacy of low-rise structures and narrow streets, built as long ago as medieval times. Some European cities try to preserve their historic CBDs by limiting high-rise buildings and the number of cars. Several high-rise offices were built in Paris during the 1970s, including Europe’s tallest office building (the 210-meter, or 688-foot, Tour Montparnasse). The public outcry over this disfigurement of the city’s historic skyline was so great that officials reestablished lower height limits.

More people live downtown in cities outside North America. As a result, CBDs outside North America are more likely to contain supermarkets, bakeries, butchers, and other food stores. However, the 24-hour supermarket is rare outside North America because of shopkeeper preferences, government regulations, and longtime shopping habits. Many CBDs outside of North America ban motor vehicles from busy shopping streets, thus emulating one of the most attractive attributes of large shopping malls—pedestrian-only walkways. Shopping streets reserved for pedestrians are widespread in Northern Europe, including in the Netherlands, Germany, and Scandinavia. Rome periodically bans private vehicles from the CBD to reduce pollution and congestion and minimize damage to ancient monuments.

Although constructing large new buildings is difficult, many shops and offices still wish to be in the center of European cities. The alternative to new construction is renovation of older buildings. However, renovation is more expensive and does not always produce enough space to meet the demand. As a result, rents are much higher in the center of European cities than in U.S. cities of comparable size.

## KEY ISSUE 2

# Where Are People Distributed Within Urban Areas?

- Models of Urban Structure
- Applying 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. ■

## 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. The three models were later applied to cities elsewhere in the United States and in other countries.

Except for Lake Michigan to the east, few physical features have interrupted the region’s growth. Chicago includes a CBD known as the Loop because transportation lines (originally cable cars, now El trains) loop around it. Surrounding the Loop are residential suburbs to the south, west, and north.

## Concentric Zone Model

The concentric zone model was the first to explain the distribution of different social groups within urban areas (Figure 13-4). 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. Back in the 1920s, Burgess identified five rings:

1. CBD: The innermost ring, where nonresidential activities are concentrated.
2. A 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.
3. A zone of working-class homes, which contains modest older houses occupied by stable, working-class families.