

Services and Settlements

Learning Outcomes

After reading, studying, and discussing the chapter, students should be able to:

Learning Outcome 12.1.1: Describe the three types of services and changing numbers of types of jobs.

Learning Outcome 12.2.1: Explain the concepts of market area, range, and threshold.

Learning Outcome 12.2.2: Explain the distribution of different-sized settlements.

Learning Outcome 12.2.3: Explain how to use threshold and range to find the optimal location for a service.

Learning Outcome 12.2.4: Understand the role of periodic markets in the provision of services in developing countries.

Learning Outcome 12.3.1: Describe the factors that are used to identify global cities.

Learning Outcome 12.3.2: Explain the two types of business services in developing countries.

Learning Outcome 12.3.3: Explain the concept of economic base.

Learning Outcome 12.4.1: Describe the difference between clustered and dispersed rural settlements.

Learning Outcome 12.4.2: Explain the types of services in early settlements.

Learning Outcome 12.4.3: Identify important prehistoric, ancient, and medieval urban settlements.

Learning Outcome 12.4.4: Explain the two dimensions of urbanization.

Chapter Outline

The service sector is inextricably linked to settlements, so the discussion of why settlements cluster where they do also introduces the concept of cities as central places, a discussion continued in Chapter 13.

Key Issue 1: Where Are Services Distributed?

Consumer Services The principle purpose of **consumer services** is to provide services to individual consumers who desire them and can afford to pay for them. Nearly half of all jobs in the United States are

in consumer services. Four main types of consumer services are retail and wholesale services, leisure and hospitality services, health and social services, and education.

Business Services The principle purpose of **business services** is to facilitate the activities of other businesses. One-fourth of all jobs in the United States are in business services. The three main types of business services are transportation and information services, professional services, and financial services.

Public Services The purpose of **public services** is to provide security and protection for citizens and businesses. About 10 percent of all U.S. jobs are in the public sector. Excluding educators, one-sixth of public-sector employees work for the federal government, one-fourth for one of the 50 state governments, and three-fifths for one of the tens of thousands of local governments.

Changes in Number of Employees All growth in employment in the United States has been in services, whereas employment in primary and secondary sector activities has declined. Within business services, jobs expanded most rapidly in professional services (such as engineering, management, and law), data processing, advertising, and temporary employment agencies. On the consumer services side, the most rapid increase has been in the provision of health care, but other large increases have been recorded in education, entertainment, and recreation.

Services in the Recession The service sector triggered the severe economic recession that began in 2008. Principle contributors to the recession were some of the practices involved in financial and real estate services. The early twenty-first century recession was also distinctive because it rapidly affected every region of the world. The impact of the global recession varied by region and locality.

Key Issue 2: Where Are Consumer Services Distributed?

Market Area of a Service The concept of **central place theory** helps to explain how the most profitable location can be identified. A **central place** is a market center for the exchange of goods and services by people attracted from the surrounding area. The central place is so called because it is centrally located to maximize accessibility. Businesses in central places compete against each other to serve as markets for goods and services for the surrounding region. The area surrounding a service from which customers are attracted is the **market area** or **hinterland**. To establish a market area, a circle is drawn around the node of a service on a map. The territory around the circle is its market area.

Because most people prefer to get services from the nearest location, consumers near the center of the circle obtain services from local establishment. The closer to the periphery of the circle, the greater the percentage of consumers who will choose to obtain services from other nodes. People on the circumference of the market-area circle are equally likely to use the service or go elsewhere.

Range of a Service The **range** is the maximum distance people are willing to travel to use a service. People are willing to go only a short distance for everyday consumer services, such as groceries and pharmacies. But they will travel longer distances for other services such as a concert or professional ball game. As a rule, people tend to go to the nearest available service. Therefore, the range of a service must be determined from the radius of a circle that is irregularly shaped rather than perfectly round. The irregularly shaped circle takes in the territory for which the proposed site is closer than competitors' sites.

Threshold of a Service The **threshold** of a service is the minimum number of people needed to support the service. Every enterprise has a minimum number of customers required to generate enough sales to make a profit. So once the range has been determined, a service provider must determine whether a location is suitable by counting the potential customers inside the irregularly shaped circle. How expected consumers inside the range are counted depends on the product. Convenience stores and fast-food restaurants appeal to nearly everyone, whereas other goods and services appeal primarily to certain consumer groups.

Nesting of Services and Settlements There are four different levels of a market area: hamlet, village, town, and city. Only consumer services that have small thresholds and short ranges are found in hamlets or villages because too few people live in these areas to support many services. A large department store cannot survive in a hamlet or village because the threshold exceeds the population within range of the settlement. Towns and cities provide consumer services that have larger thresholds and ranges. A city has a much larger variety of services than you would find in a hamlet or village.

Rank-Size Distribution of Settlements In many developed countries, geographers observe that ranking settlements from largest to smallest (population) produces a regular pattern. This is called the **rank-size rule**. The second-largest city is one-half the size of the largest, the fourth-largest city is one-fourth the size of the largest, and so on. When plotted on logarithmic paper, the rank-size distribution forms a fairly straight line. In the United States and a handful of other countries, the distribution of settlements closely follows the rank-size rule.

If a country does not follow the rank-size rule, it may follow the **primate city rule**. A country's largest city is called the **primate city**. If a country follows the primate city rule it means that the country's largest settlement has more than twice as many people as the second-ranking settlement. The absence of rank-size distribution in many developing countries indicates that there is not enough wealth in the society to pay full variety of services. The absence of a rank-size distribution constitutes a hardship for people who must travel long distances to reach an urban settlement with shops and such services as hospitals.

Profitability of a Location A suitable site is one with the potential for generating enough sales to justify using the company's scarce capital to build it. Service providers often say that the three most important factors in determining whether a particular site will be profitable are, "location, location, and location." One corner of an intersection can be profitable and another corner of the same intersection unprofitable. The **gravity model** predicts that the optimal location of a service is directly related to the number of people in an area and inversely related to the distance people must travel to access it. The best location will be the one that minimizes the distances that all potential customers must travel to reach the service.

Periodic Markets A periodic market is typically set up in a street or other public space early in the morning, taken down at the end of the day, and set up in another location the next day. A periodic market provides goods to residents of developing countries, as well as rural areas in developing countries, where sparse populations and low incomes produce purchasing power too low to support full-time retailing. Many vendors in periodic markets are mobile, driving their trucks from farm to market, back to the farm to restock, then to another market. Other vendors, especially local residents who cannot or prefer not to travel to other villages, operate on a part-time basis, perhaps only a few times a year.

Key Issue 3: Why Are Business Services Distributed?

Business Services in Global Cities Global cities are most closely integrated into the global economic system because they are at the center of the flow of information and capital. Business services, including law, banking, insurance, accounting, and advertising, concentrate in disproportionately large numbers in global cities. Global cities are divided into three levels: alpha, beta, and gamma. A combination of economic, political, cultural, and infrastructure factors are used to identify global cities and to distinguish among the various ranks.

Consumer and Public Services in Global Cities Because of their large size, global cities have retail services with extensive market areas. A disproportionately large number of wealthy people live in global cities, so luxury and highly specialized products are especially likely to be sold there. Global cities are also centers of national and international political power. Most are national capitals, and they contain mansions or palaces for the head of state. Structures for national legislature and offices for government agencies are also located in global cities. Also clustered in global cities are offices for groups having business with the government, such as representatives of foreign countries, trade associations, labor unions, and professional organizations.

Offshore Financial Services Small countries exploit niches in the circulation of global capital by offering offshore financial services. The privacy laws and low tax rates in offshore centers can also provide havens to tax dodges and other illegal schemes. By definition, the extent of illegal activities is unknown and unknowable. A prominent example of an offshore banking center is the Cayman Islands. Several hundred banks with assets of more than \$1 trillion are legally based in the Caymans. Most of these banks have only a handful of people, if any, actually working in the Caymans.

Business-Process Outsourcing Typical back-office functions include insurance claims processing, payroll management, transcription work, and other routine clerical activities. Traditionally, companies housed their back-office staff in the same office building downtown as their management staff, or at least in nearby buildings. Rising rents downtown have induced many business services to move routine work to lower-rent buildings elsewhere. For many business services, improved telecommunications have eliminated the need for spatial proximity. Selected countries have been able to attract back office work for two reasons related to labor: low wages and ability to speak English.

Economic Base of Settlements A settlement's distinctive economic structure derives from its **basic industries**, which export primarily to consumers outside the settlement. **Nonbasic industries** are enterprises whose customers live in the same community. A community's unique collection of basic industries defines its **economic base**. A settlement's economic base is important because exporting by the basic industries brings money into the local economy, thus stimulating the provision of more nonbasic consumer services for the settlement.

Specialization of Cities in Different Services Settlements in the United States can be classified by their type of basic activity. In a postindustrial society, such as the United States, increasingly the basic economic activities are in business, consumer, or public services. Steel was once the most important basic industry of Cleveland and Pittsburg, but now health services such as hospitals and clinics and medical high-technology research are more important. After Baltimore's manufacturing base declined, the city's

economic base turned increasingly to services, taking advantage of its clustering of research-oriented universities. The city is trying to become a center for the provision of services in biotechnology.

Distribution of Talent Some cities have a higher percentage of talented individuals than others. Talented individuals are attracted to cities with the most job opportunities and financial incentives. Individuals with special talents also gravitate toward cities that offer more cultural diversity. Florida measured talent as a combination of the percentage of people in the city with college degrees, the percentage employed as scientists or engineers, and the percentage employed as professionals or technicians. Attracting talented individuals is important for a city because these individuals are responsible for promoting economic innovation. They are likely to start new businesses and infuse the local economy with fresh ideas.

Key Issue 4: Why Do Services Cluster in Settlements?

Clustered Rural Settlements A **clustered rural settlement** is an agricultural-based community in which a number of families live in close proximity to each other, with fields surrounding the collection of houses and farm buildings. This type of settlement typically includes homes, barns, tools, sheds, and other farm structures, plus consumer services, such as religious structures, schools, and shops. In common language, such a settlement is called a **hamlet** or **village**. The fields must be accessible to the farmers and are thus limited to a radius of $\frac{1}{2}$ or 1 mile. Clustered rural settlements are often arranged in one of two types of patterns: circular or linear.

New England colonists built clustered settlements centered on an open area called a common. Settlers grouped their homes and public buildings, such as the church and school, around a common. Each villager owned several discontinuous parcels on the periphery of the settlements to provide the variety of land types needed for different crops. Beyond the fields, the town held pastures and woodland for the common use of all residents. However, quaint New England towns are little more than picturesque shells of clustered rural settlements because today's residents work in shops and office rather than on farms.

A **dispersed rural settlement**, typical of the North American rural landscape, is characterized by farmers living on individual farms isolated from neighbors rather than alongside other farmers in settlements. The Middle Atlantic colonies were settled by more heterogeneous groups than those in New England. Most arrived in Middle Atlantic colonies individually rather as members of a cohesive cultural religious or cultural groups. Dispersed rural settlement patterns dominated in the American Midwest in part because the early settlers came primarily from the Middle Atlantic colonies.

Dispersed rural settlements were considered more efficient for agriculture than clustered settlements. A prominent example was the **enclosure movement** in Great Britain between 1750 and 1850. The British governments transformed the rural landscape by consolidating individually owned strips of land surrounding a village into a single large farm owned by an individual. When necessary, the government forced people to give up their former holdings. The enclosure movement brought greater agriculture efficiency, but it destroyed the self-contained world of village life.

Services in Early Settlements The earliest permanent settlements may have been established to offer consumer services, specifically places to bury the dead. Having established a permanent resting place for the dead, the group might then install priests at the site to perform the service of saying prayers for the

deceased. This would have encouraged the building of structures—places for ceremonies and dwellings. Until the invention of skyscrapers in the late nineteenth century, religious buildings were often the tallest structures in a community. Settlements also may have been places to house families, permitting unburdened males to travel farther in their search of food.

Public services probably followed religious activities into early permanent settlements. A group's political leaders chose to live permanently in the settlement, which may have been located for strategic reasons to protect the group's land claims. Thus settlements became centers of military power. People also brought objects and materials they collected or produced into the settlement and exchanged them for items brought in by others. Settlements served as neutral ground where several groups could safely come together to trade goods or services. Settlements later became manufacturing centers.

Earliest Urban Settlements The first ancient cities may have been in Mesopotamia. Ancient Ur, Athens, and later Rome were all centers of services more complex than those found in smaller rural settlements. Medieval cities represented an expansion of trade and increased liberty for residents compared to the life of rural serfs. Medieval cities lacked space for construction because they were surrounded by walls, so ordinary shops and houses were nestled into the side of the walls and large buildings. After the collapse of the Roman Empire, most of the world's largest urban settlements were clustered in China.

Rapid Growth of Urban Settlements The process by which the populations of urban settlements grow is known as **urbanization**. Urbanization has two dimensions: an increase in the number of people living in urban settlements and an increase in the percentage of people living urban settlements. MDCs are on average about 75 percent urban while LDCs are on average about 40 percent urban. Urbanization is increasing in LDCs but a portion of that increase is due to high natural increase rates, not economic factors.

Differences between Urban and Rural Settlements A century ago, social scientists observed striking differences between urban and rural residents. An urban dweller follows a different way of life than a rural dweller. These urban settlements differentiated from rural areas by their large size, high population density, and socially heterogeneous people. These characteristics produced differences in the social behavior of urban and rural residents.

Introducing the Chapter

Students will have a familiarity born of direct experience with many jobs in this sector, thus, it does not warrant as lengthy an introduction. Try the following icebreaker to stimulate discussion and approach central place theory in a roundabout way.

Icebreaker: Central Places

Choose three close together (within 100 miles of each other) towns: the one your school is located in and two others, so that the relative sizes are at least 1:5:25 (each town is at least five times the size of the next of the next). Give students an overview of each town and the population size so they are familiar. Now ask the following: which towns would be *likely* to have a . . .

- gas station?

- fast-food restaurant?
- general practitioner?
- shopping center?
- shopping mall?
- movie theater?
- theater for plays or performances?
- professional piano tuner?
- lawyer for traffic court?
- neurosurgeon?
- thrift store?
- lawyer for international litigation?
- luxury fashion shop (e.g., Fendi, Prada, Versace)?
- ... etc. ...

The examples will lead students to the “obvious” answer that the more specialized services will be located in the larger city, while the basic services will be found in every town. However, students will probably not have considered why this pattern is so predictable. You could go back through the list and ask which services are more or less specialized to reveal this, or simply begin a discussion of threshold and range.

Challenges to Comprehension

Range vs. Threshold

Though both are elementary concepts, students do not always grasp the difference between them. Here is a way to explain the distinction by comparing high-range services and high-threshold services.

High-range services are specialized enough that people will travel great distances to use them. Because they are high-range, their range by default includes a large population (all the people within the range are potential customers). However, many services are so specialized that a low percentage of people within their range will use the service. Examples include specialized medicine, some artists, or specialized producer services.

High-threshold activities can have low ranges, but need a large population to support the business. People would not travel very far for the service, so the service locates central to large populations. Examples include superstores, malls, and fast-food restaurants.

False Hierarchies

Students may assume that since services are presented as the tertiary sector of the economy, service jobs are intrinsically more valuable than those in the primary and secondary sectors. Disabuse them of this notion by pointing out that service jobs include low-paid, low-skill jobs like housekeeping and restaurant work.

On the other hand, some students may feel that workers in the first two sectors are the ones doing “real work,” especially if they work in those sectors. Discussions of this topic can create debates about worker productivity, Marxism, and capitalism.

Assignments

Review/Reflection Questions

- Make a list of the service jobs you’ve had, and identify each by type according to the text.
- Describe the type of job you’re hoping to start after college. Is it a service? What does this, combined with your previous answer, tell you about the range of service jobs?
- Would it be difficult to do well at the job you’ve described above if you lived in a very small town? Use the concepts of threshold, range, and central place theory to describe why high-paying jobs are easier to find in large cities.
- Present the reasoning of a person who chooses to live downtown, near the central business district (CBD). Answer as though you’re explaining to a friend why you chose to live there. Reference concepts from the text in your answer.
- Now present the reasoning of a person who chooses to live in the suburbs while they work in the city. Again, answer as though you’re explaining your decision to a friend and reference concepts from the text.

Thinking Geographically Questions

12.1: What evidence can you find in your community of economic ties to developing countries?

I live in Los Angeles County. Los Angeles County has very strong economic ties to Latin America and East Asia. About half of the imported manufactured goods in the United States go through the Port of Los Angeles. The Port of Los Angeles handles more freight than any other port in the United States and is actually one of the busiest ports in the world. Los Angeles International Airport handles huge amounts of freight, as well as thousands of international passengers every day. Most of the freight coming into the Port of Los Angeles and Los Angeles International Airport is coming from East Asia.

Los Angeles County does a huge amount of trade with Northern Mexico. The neighbors on both sides of my parent’s home own assembly plants in Tijuana. They usually stay in Tijuana two or three nights a week. They both do very well financially. Our freeways in Los Angeles County are jammed with trucks coming up from Northern Mexico who are loaded with manufactured goods and agricultural products. NAFTA really helped increase trade between Los Angeles County and Northern Mexico.

12.2: In most communities, the largest employers other than the local government are consumer services. What are the largest consumer services in your community? (You can Google “largest employers (your community)” to find out.)

The largest consumer services employers in Los Angeles County are Kroger Company (retail), Kaiser Permanente (medical services), Target (retail), University of Southern California (private education), Bank of America (financial services), and Walt Disney Company (entertainment services).

12.3: Your community's economy is expanding or contracting as a result of the performance of its basic employment. Two factors can explain this performance. One is that the sector is expanding or contracting nationally. The second is that the sector is performing much better or worse in the community than in the country as a whole. Which of the two factors better explains the performance of your community's basic employment?

The economy as a whole in the United States is slowly improving. In Southern California we are lagging behind. Our unemployment rate is still well above the national average and has not shown any real signs of improvement. I heard recently that one-third of the U.S. population that receives welfare benefits is living in California. Southern California has been harder hit by the economic slowdown than Northern California, so it leads me to believe that a large percentage of the country's welfare recipients live in Southern California. We recently voted for our sales tax rate to increase again, so that will probably aid the exodus of businesses already leaving the area, which will increase unemployment. We are in bad shape economically.

12.4: Rural settlement patterns along the U.S. East Coast were influenced by migration during the Colonial era. To what extent have distinctive rural settlement patterns elsewhere in the United States resulted from international or internal migration?

The architectural style of barns built during the 1800s in the Northern Great Plains was determined by what ethnic groups settled there. Barns were built in different ways by different ethnicities. Farmers could look at a barn and tell you what ethnicity the farmer that built the barn was. Many of those barns are gone and have been replaced by modern barns that show no ethnic character.

Pause and Reflect Questions

12.2.1: In which sectors of the economy do you or members of your family work? If in the service sector, in which types of services are these jobs?

Both my father and I work in the service sector. We both are public servants. He is a Superior Court Judge employed by the State of California and I am a teacher employed by a local Community College District. My mom is retired and my wife is a stay-at-home mom.

12.2.1: What occurs in nature in the shape of hexagons? Google "naturally occurring hexagons." Infer why human economic activities also create a hexagonal pattern.

Bees make their hives in the shape of hexagons. Bees make their hives in a honeycomb shape. Geographers use hexagons to depict the market area of a good or service because hexagons offer a compromise between the geometric properties of circles and squares.

12.2.2: According to the rank-size rule, the second-largest city in a country should have one-half the population of the largest city, and the tenth-largest city should one-tenth the population of the largest city. Does Peru follow the rank-size rule or the primate city rule? Google “most populous cities in Peru.”

Peru is definitely a good example of the primate city rule. Lima is almost 10 times larger than the second most populous city in the country.

12.2.3: When you order a pizza for carry out or delivery, do you get it from the nearest place? Why might you get it from a more distant location?

I go to a local pizza place in town that is a few miles farther away from my house than Pizza Hut and Domino's Pizza. They just have much better pizza than the national chains.

12.2.4: Identify an example of a periodic market in developed countries?

The farmer's markets that they have in most large towns are an example of a periodic market in developed countries.

12.3.1: List the alpha, beta, and gamma cities that are nearest to you. How would you expect an alpha city such as Chicago to differ from Houston (beta) and Phoenix (gamma)?

I live in Los Angeles, which is an alpha city. San Diego is about 120 miles away from me and they are a beta city. Phoenix is almost 400 miles away from me and they are a gamma city.

Los Angeles has an economy bigger than many countries and is without a doubt one of the most important cities in the world. Many of the largest West Coast military bases are located in San Diego, and San Diego is a very popular tourist destination. Phoenix is becoming more important, but is not a city that has a huge amount of economic importance in the world.

12.3.2: When it is 3 P.M. on a Tuesday where you live, what time and day is it at a call center in India? Refer to Figure 1-11.

If it is 3:00 P.M. on a Tuesday in Los Angeles it would be 4:30 A.M. on Wednesday in New Delhi, India.

12.4.1: How might the presence of clustered rural settlements in New England have contributed to the region's distinctive dialect of English noted in Chapter 5?

The clustered rural settlements in New England were settled by homogeneous groups. This kept the people of these clustered settlements somewhat isolated from other ethnic groups. This kept their distinctive dialect alive because they did not integrate into society as much as the people in the Midlands region.

12.4.2: Infer what functions caves might have served for early humans, in addition to burying the dead.

People lived in caves. There are people in the world that still live in caves.

12.4.3: Medieval walled cities were constructed near political boundaries. How far is the medieval walled city of Carcassonne, France, from an international boundary?

Carcassonne, France, is about 70 miles from the France-Spain border.

Google Earth Questions

GOOGLE EARTH 12.1: The Pentagon is the world's largest public-sector building. Fly to the Pentagon. How many concentric pentagons does the structure contain?

5.

GOOGLE EARTH 12.2: West Edmonton Mall, in Edmonton, Alberta, is the largest mall in North America. How does it compare in area with Jungle Jim's, shown in Google Earth 10.2?

Jungle Jim's is 30,000 square meters, and West Edmonton Mall is 140,000 square meters.

GOOGLE EARTH 12.3: Several hundred banks are registered in George Town, Cayman Islands, but their only presence is mailboxes in the Central Post Office. How far is the Central Post office from the nearest wharf, where wealthy people might be able to dock a yacht?

300 meters.

GOOGLE EARTH 12.4: Fly to Ur, Iraq. Turn on 3D and drag to ground-level view. What is the only structure in 3D in the excavations?

Ziggurat of Ur.

Resources

U.S. Department of Labor Bureau of Labor Statistics

This website provides enough statistics on labor and industry to last a lifetime: www.bls.gov/.

Detailed statistics are available on labor, job markets, inflation, productivity, unemployment, and much more.

U.S. Census Bureau Service Annual Survey

www.census.gov/econ/www/servmenu.html

This website details statistics (some collected quarterly) on employment in the service sector. This site includes definitions of each service industry (type), detailed data on each type, and the survey forms used to collect the data.

Connections between Chapters

Back to Chapter 11

As industrial jobs are lost to higher productivity or simply “offshored,” service jobs represent the majority of job growth in the developed world. Technology and efficiency has been able to create site and situation factors which allow some jobs to move, but many services are location-specific to where the market is.

However, an excellent example of the rapidity of this change is the increasing number of North Americans (though still very small) who travel to places as far away as India for surgery or other healthcare to save medical costs. Not even doctors’ jobs are completely safe in the global marketplace!

Forward to Chapter 13

The transition is nearly seamless since Chapter 12 already introduces the fact that settlements and services occur together. With earlier discussions of central place theory and the hierarchical organization of settlements, students should be prepared to delve deeper into urban geography.