

Chapter 12

Services

By Eugene Stanton

Services

- The regular distribution (of settlements) observed over North America and over other more developed countries is not seen in less developed countries.
- The regular pattern of settlement in more developed countries reflects where services are provided.
- In more developed countries the majority of the workers are employed in the tertiary sector of the economy, defined in Chapter 9 as the provision of goods and services to people in exchange for payment.
- In contrast, less than 10 percent of the labor force in less developed countries provides services.



Chapter 12 Key Issues

- 1. Where did services originate?
- 2. Why are consumer services distributed in a regular pattern?
- 3. Why do business services locate in large settlements?
- 4. Why do services cluster downtown?



Services Defined



- A service is any activity that fulfills a human want or need and returns money to those who provide it.
- In sorting out where services are distributed in space, geographers see a close link between services and settlements, because services are located in settlements.
- A settlement is a permanent collection of buildings, where people reside, work, and obtain services.
- They occupy a very small percentage of Earth's surface, substantially less than 1 percent, but settlements are home to nearly all humans, because few people live in isolation.

Services and Location

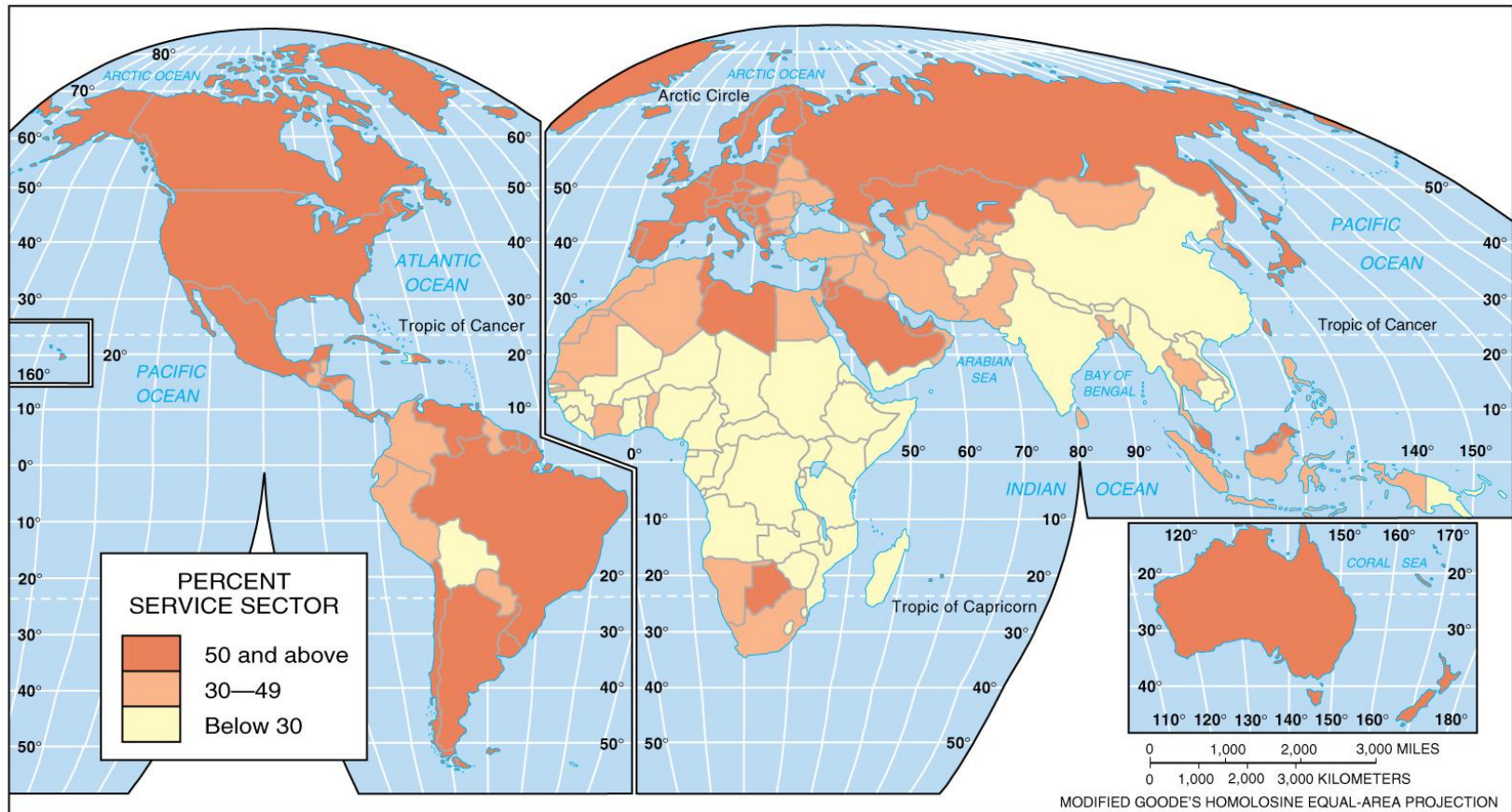
- The optimal location of industry, described in Chapter 11, requires balancing a number of site and situation factors; but the optimal location for a service is simply near its customers.
- On the other hand, locating a service calls for far more precise geographic skills than locating a factory.
- The optimal location for a service may be a very specific place, such as a street corner.
- Within more developed countries, larger cities offer a larger scale of services than do small towns, because more customers reside there.
- As they do for other economic and cultural features, geographers observe trends toward both globalization and local diversity in the distribution of services.



Types and Origins of Services

- Types of services
 - Consumer services
 - Business services
 - Public services
 - Changes in number of employees
- Origin of services
- Services in rural settlements
 - Clustered rural settlements
 - Dispersed rural settlements

Service Sector Employment



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Fig. 12-1: Over half of workers are employed in the service sector in most MDCs, while a much smaller percentage are in the service sector in most LDCs.

Types of Services

- The service sector of the economy is subdivided into three types:
 - consumer services,
 - business services,
 - and public services.
- The first two groups are divided into two subgroups.
- This division of the service sector has largely replaced earlier approaches that identified tertiary, quaternary, and quinary sectors in various ways.



Consumer & Retail Services

- Retail services and personal services are the two main types of consumer services.
- About one-fifth of all jobs in the United States are in retail services.
 - Within the group, one-fifth of the jobs are in wholesale, one third in... food (services).



Personal & Business Services

- Another one-fifth of all jobs in the United States are in personal services.
 - Most of these jobs are in health care or education.
 - The remainder are primarily arts and entertainment and personal care.
- The principal purpose of business services is to facilitate other businesses.
 - Producer services and transportation are the two main types.



Producer Services, Transportation & Similar Services

- Producer services help people conduct other business.
 - About one-fifth all of U.S. jobs are in producer services.
- Businesses that diffuse and distribute services are grouped as transportation and information services.
 - In the United States about 7 percent of all jobs are in this group.



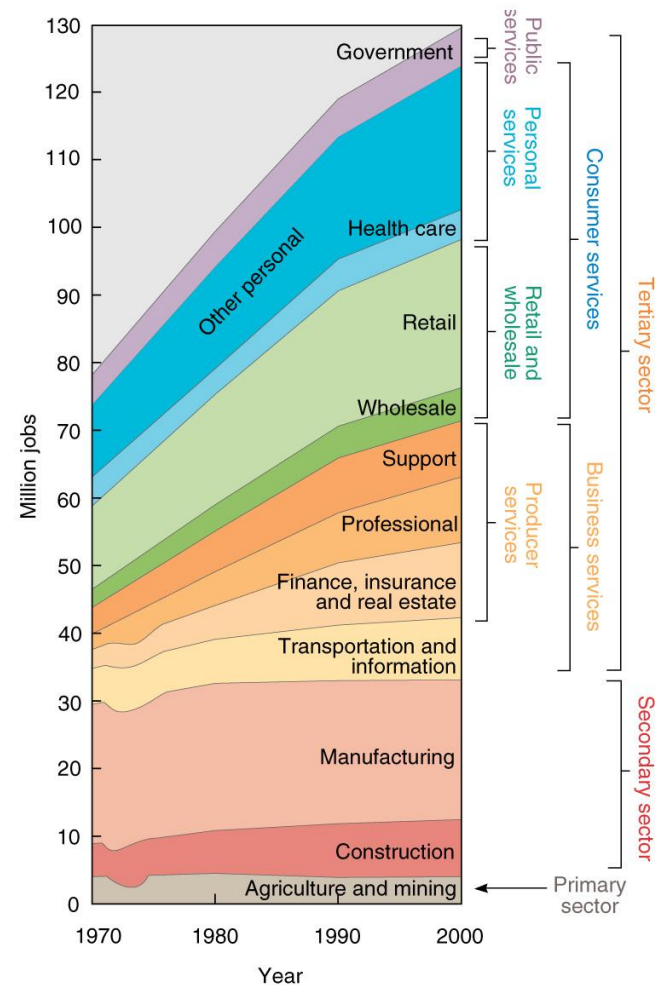
Public Services

- The purpose of public services is to provide security and protection for citizens and businesses.
- In the United States about 4 percent of all workers are in public services not already included in other service categories, such as teachers.
- The distinction among services is not absolute. Individual consumers use business services . . . and businesses use consumer services.
- Geographers find the classification useful, because the various types of services have different distributions, and different factors influence locational decisions.



Employment Change in U.S.

- Between 1970 and 2000 all of the growth in employment in the United States has been in services.
- Producer-service jobs tripled between 1970 and 2000, whereas the number of all service jobs doubled.
- Professional services... quadrupled.
- Jobs increased by about three-fourths in personal services, retail services, and transportation services, and by about one-third in public services.
- The personal-service sector has increased rapidly primarily because of a very large increase in the provision of health-care services.



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Fig 12-2. Growth in employment in the U.S. since 1970 has been entirely in the tertiary sector, with the greatest increase in professional services.

Origin of Services



- Services are clustered in settlements.
- No one knows the precise sequence of events through which settlements were established to provide services.
- Based on archaeological research, settlements probably originated to provide personal services, especially religion and education, as well as public services such as government and police protection.
- Transportation, producer, and retail services came later.

Early Personal Services

- The early permanent settlements may have been established to offer personal 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 and faster in their search for food.



The Role of Woman

- Women kept “home and hearth,” making household objects, such as pots, tools, and clothing—the origin of industry.
- The education of children became an important service.
- Making pots and educating children evolved over thousands of years into a wide variety of services which create and store a group’s values and heritage and transmit them from one generation to the next.
- People also needed tools, clothing, shelter, containers, fuel, and other material goods.
- Men gathered the materials.
- Women used these materials to manufacture household objects and maintain their dwellings.
- The variety of personal services expanded as people began to specialize.



Early Public Services

- Public services probably followed the religious activities into early permanent settlements.
- The group's political leaders also chose to live permanently in the settlement.
- The settlement likely was a good base from which the group could defend nearby food sources against competitors.
- For defense, the group might surround the settlement with a wall.
- Thus, settlements became citadels.
- Although modern settlements no longer have walls, their military and political services continue to be important.

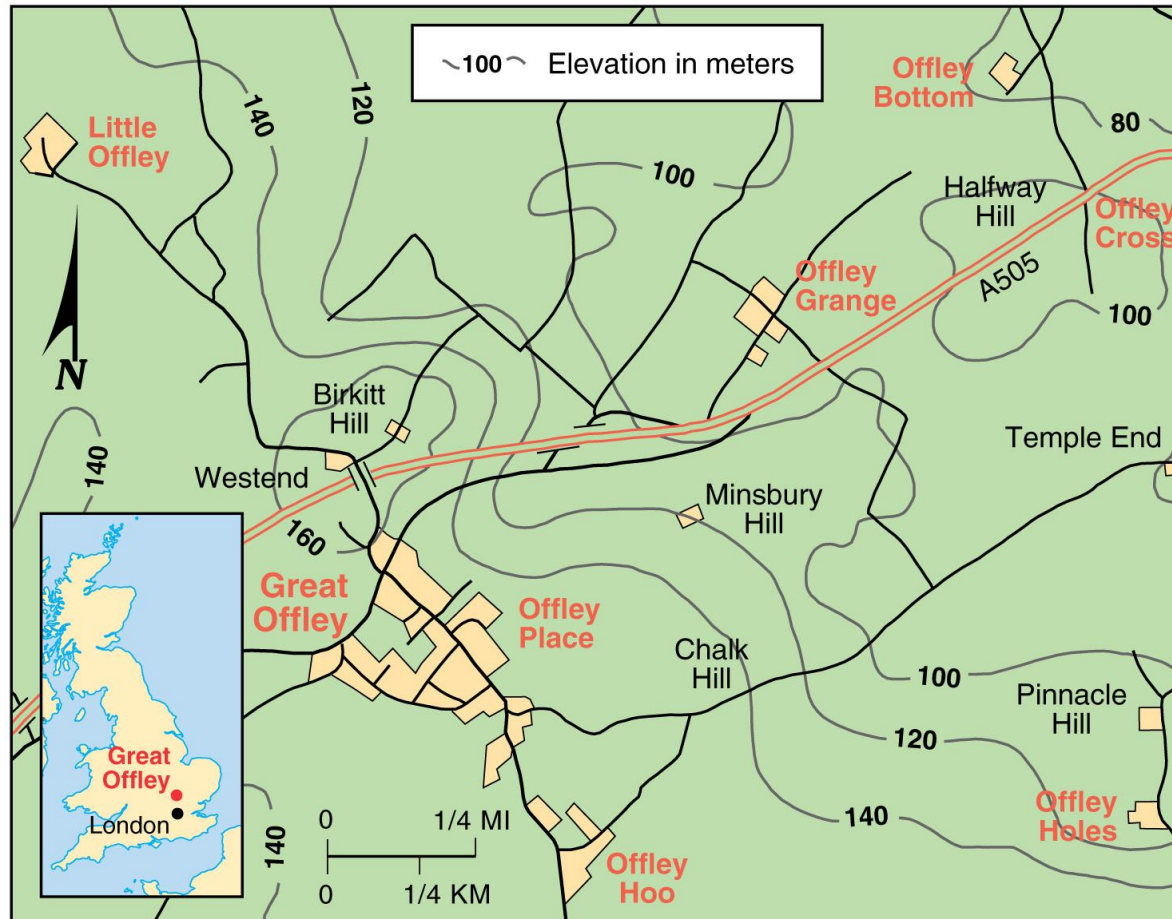


Early Retail and Producer Services



- Everyone in settlements needed food, which was supplied by the group through hunting or gathering.
- Settlements took on a retail-service function.
- People brought objects and materials they collected or produced into the settlement and exchanged them for items brought by others.
- The settlement served as neutral ground where several groups could safely come together to trade goods and services.
- To facilitate this trade, officials in the settlement provided producer services, such as regulating the terms of transactions.

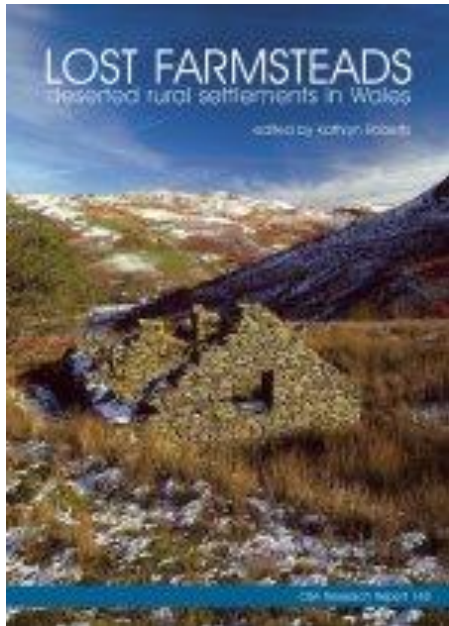
Growth of Rural Settlements



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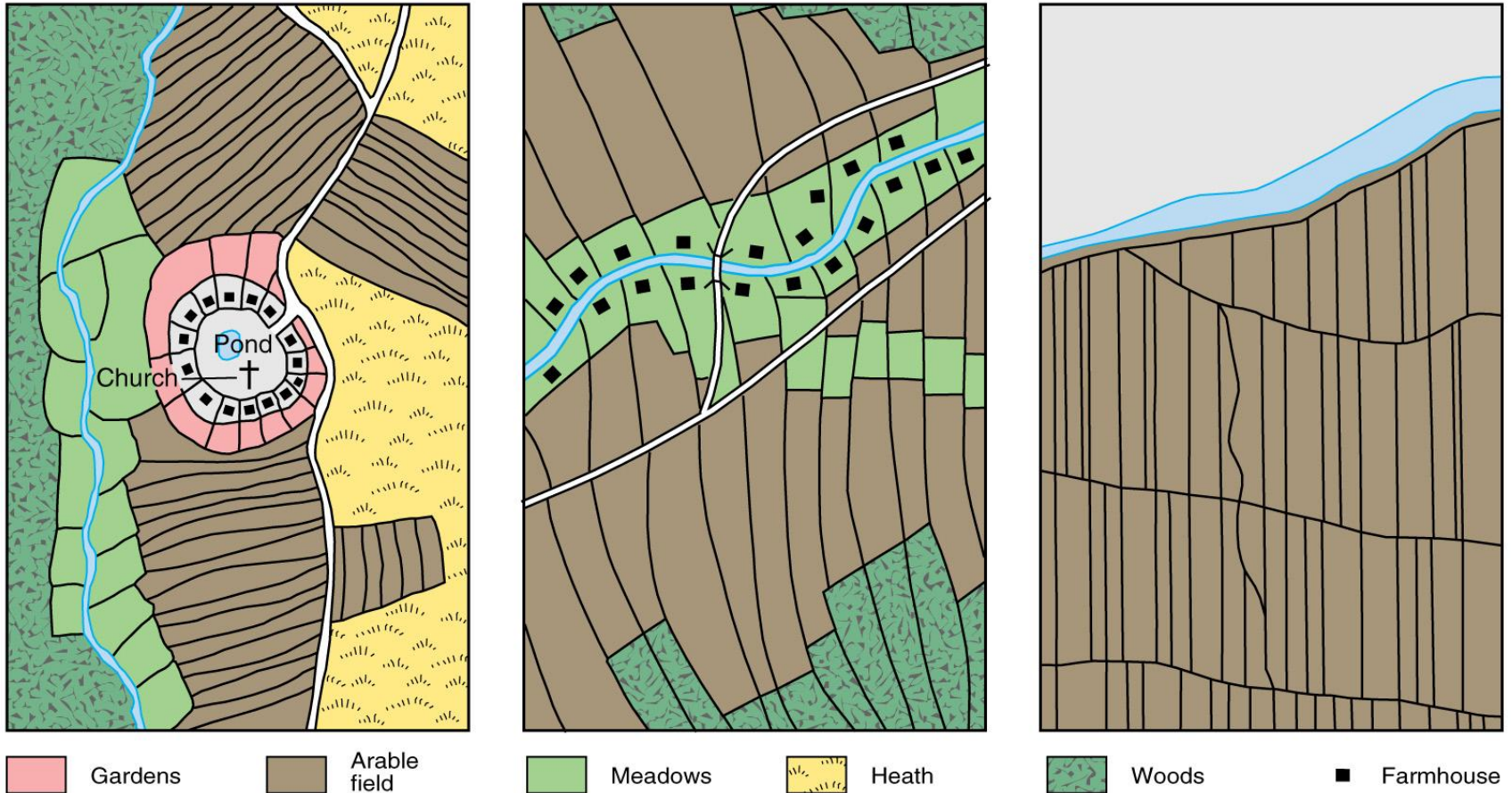
Fig. 12-3: The establishment of satellite settlements in a rural landscape over time is illustrated by the number of places named “Offley” in this area.

Clustered Rural Settlements



- A clustered rural settlement typically includes homes, barns, tool sheds, and other farm structures, plus personal services, such as religious structures and schools.
- In common language such a settlement is called a hamlet or village.
- The fields must be accessible to the farmers and are thus generally limited to a radius of 1 or 2 kilometers (one-half to 1 mile) from the buildings.
- In some places, individual farmers own or rent the land; in other places, the land is owned collectively by the settlement or by a lord.
- Parcels of land. . . may be allocated to specific agricultural activities.
- Consequently, farmers typically. . . have responsibility for. . . scattered parcels in several fields.
- This pattern. . . encouraged living in a clustered rural settlement to minimize travel time to the various fields.
- Traditionally, when the population of a settlement grew too large for the capacity of the surrounding fields, new settlements were established nearby.
- The establishment of satellite settlements often is reflected in place names.
- Clustered rural settlements are often arranged in one of two types of patterns: circular and linear.

Rural Settlement Patterns



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Fig. 12-4: Circular settlement patterns are common in Germany. Linear “long lot” patterns are often found along rivers in France, and were transferred to Québec.

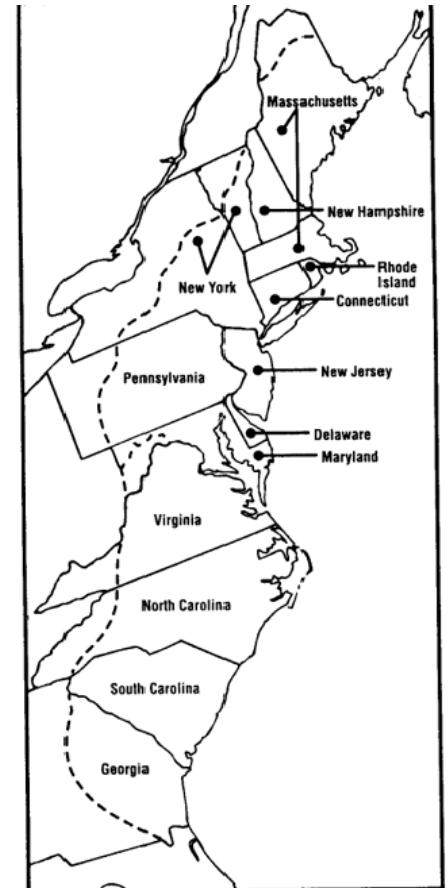
Linear Rural Settlements

- Linear rural settlements feature buildings clustered along a road, river, or dike to facilitate communications.
- The fields extend behind the buildings in long, narrow strips.
- Today, in North America, linear rural settlements exist in areas settled by the French.
- The French settlement pattern, called long-lot or seigneurial, was commonly used along the St. Lawrence River in Québec and the lower Mississippi River.



Colonial American Clustered Settlements

- The first European colonists settled along the East Coast in three regions: New England, the Southeast, and the Middle Atlantic.
- New England colonists built clustered settlements centered on an open area called a common.
- Clustered settlements were favored by New England colonists for a number of reasons.
- Typically, they traveled to the American colonies in a group.
- The settlement was usually built near the center of the land grant.
- New England settlements were also clustered to reinforce common cultural and religious values.
- Colonists also favored clustered settlements for defense against Indian attacks.
- Each villager owned several discontinuous parcels on the periphery of the settlement, 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.
- The southeastern colonies were first settled in the 1600s with small, dispersed farms.



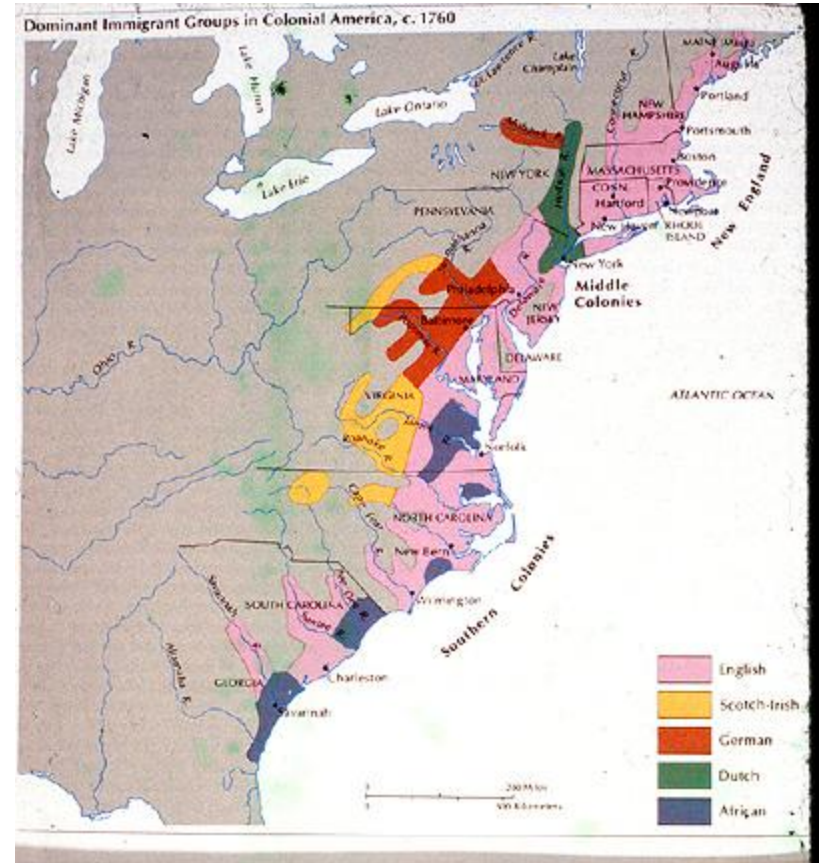
Dispersed Rural Settlements

- Dispersed rural settlements have become more common in the past 200 years, especially in Anglo-America and the United Kingdom, because in more developed societies they are generally considered more efficient than clustered settlements.



Dispersed Rural Settlements in the United States

- The Middle Atlantic colonies were settled by a more heterogeneous group of people.
- Further, most Middle Atlantic colonists came as individuals.
- Dispersed settlement patterns dominated in the American Midwest in part because the early settlers came primarily from the Middle Atlantic colonies.
- In New England a dispersed distribution began to - replace the clustered settlements in the eighteenth century.
- In part, the cultural bonds that had created clustered rural settlements had weakened.
- Owning several discontinuous fields had several disadvantages: Eventually people bought, sold, and exchanged land to create large, continuous holdings instead of several isolated pieces.
- A shortage of land eventually forced immigrants and children to strike out alone and claim farmland on the frontier.



Enclosure Movement

- To improve agricultural production, a number of European countries converted their rural landscapes from clustered settlements to dispersed patterns.
- A prominent example was the enclosure movement in Great Britain, between 1750 and 1850.
- Because the enclosure movement coincided with the Industrial Revolution, villagers who were displaced from farming moved to urban settlements and became workers in factories and services.
- The enclosure movement brought greater agricultural efficiency, but it destroyed the self-contained world of village life.



Distribution of Consumer Services

- Central place theory
 - Market area of a service
 - Size of market area
- Market area analysis
 - Profitability of a location
 - Optimal location within a market
- Hierarchy of services and settlements
 - Nesting of services and settlements
 - Rank-size distribution of settlements

Central Place Theory

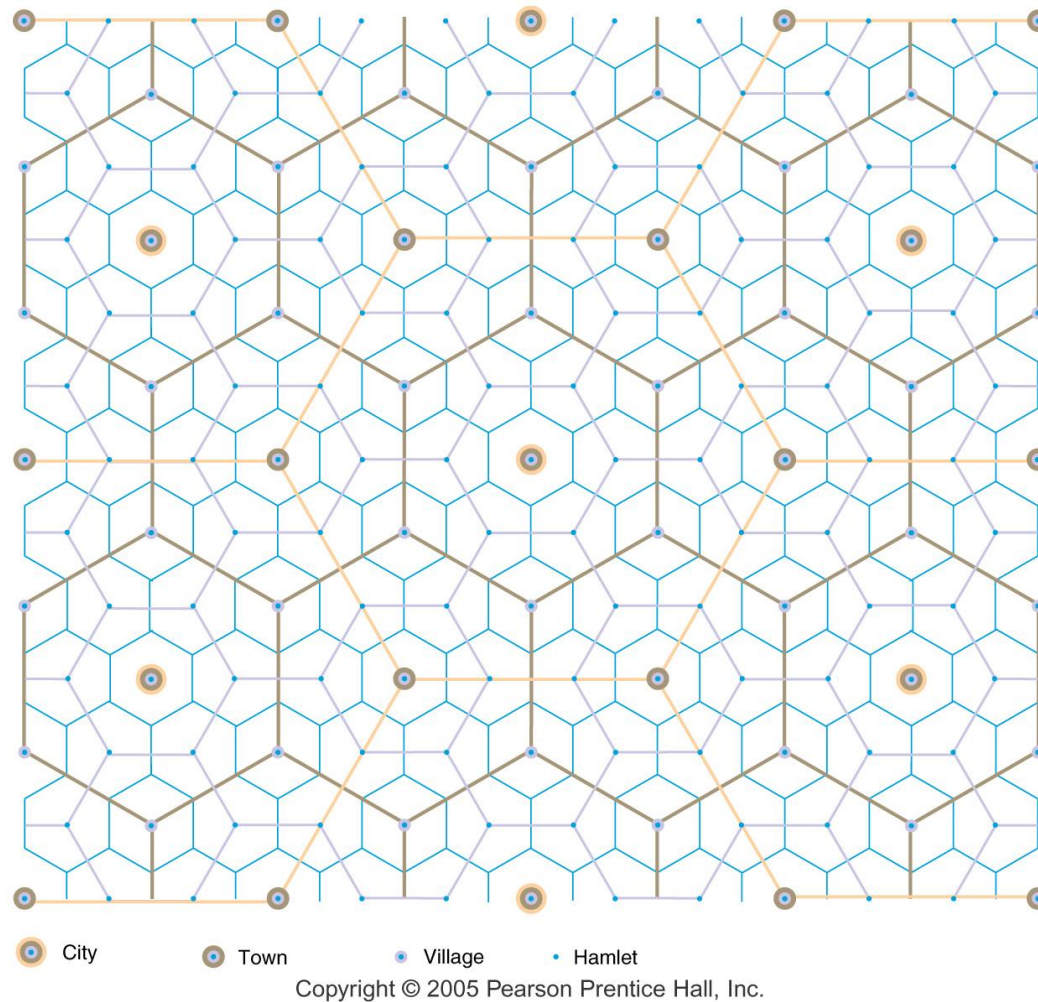
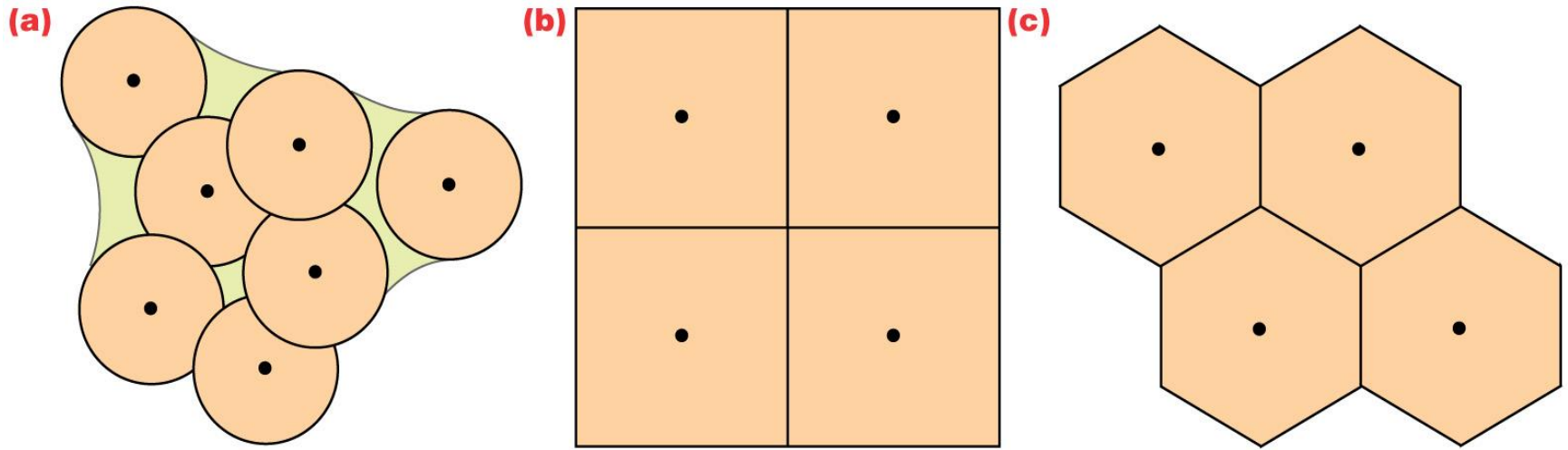


Fig. 12-7: Market areas are arranged into a regular pattern according to central place theory, with larger settlements fewer and further apart.

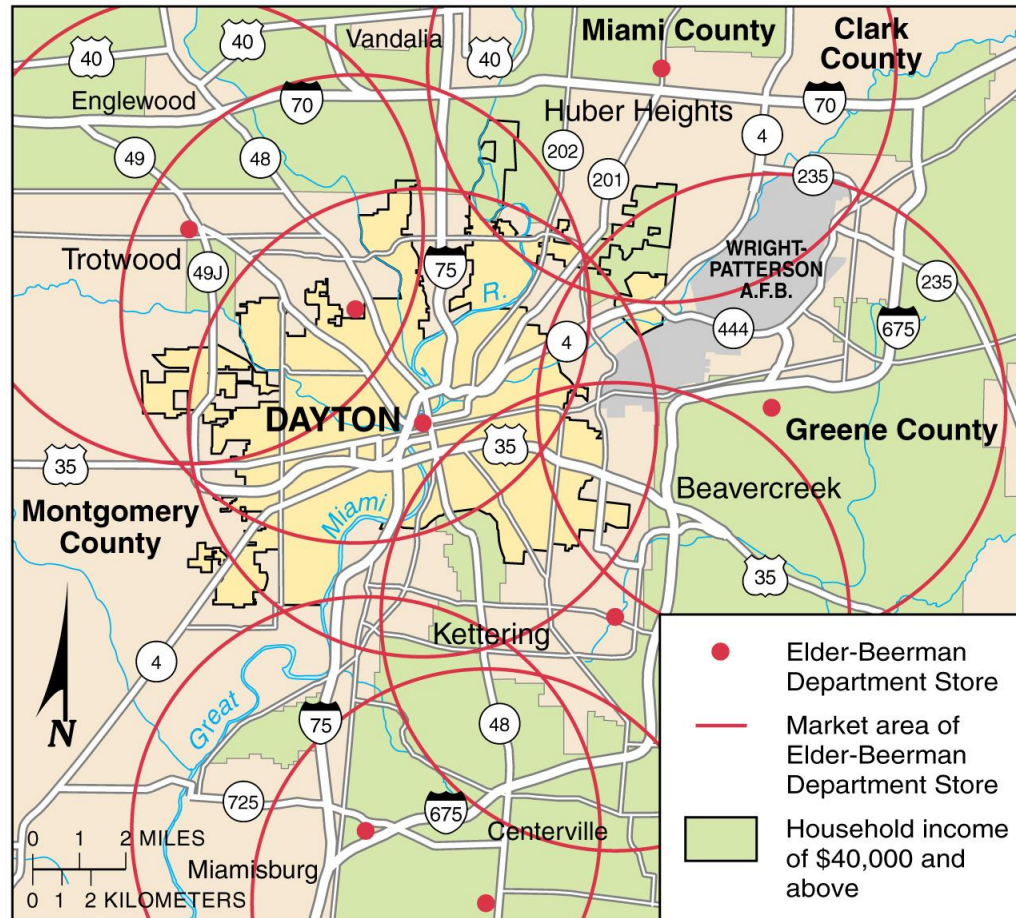
Market Areas as Hexagons



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Fig. 12-5: Hexagons are often used to delineate market areas because they are a compromise between circles, which have edges equidistant from the center but leave gaps, and squares, which don't leave gaps but whose edges are not equidistant from the center.

Market Areas for Stores

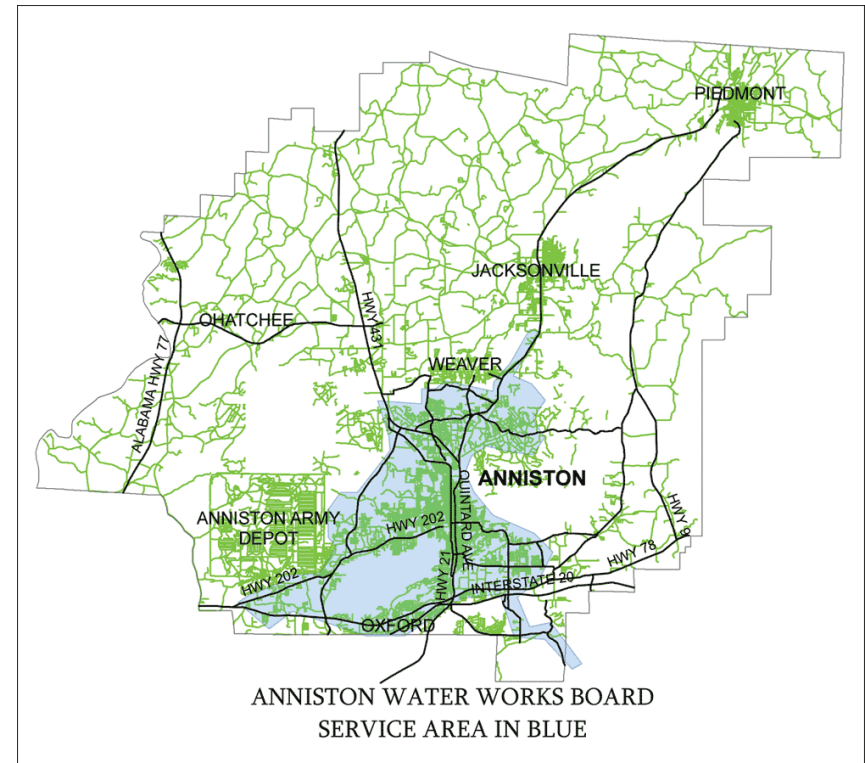


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Fig. 12-1-1: Market areas, ranges, and thresholds for department stores in the Dayton, Ohio, metropolitan area.

Range of a Service

- The range is the maximum distance people are willing to travel to use a service.
- The range is the radius of the circle drawn to delineate a service's market area.
- If firms at other locations compete by providing the service, the range must be modified.
- The irregularly shaped circle takes in the territory for which the proposed site is closer than competitors.'
- The range must be modified further because most people think of distance in terms of time, rather than a linear measure like kilometers or miles.
- The irregularly shaped circle must be drawn to acknowledge that travel time varies with road conditions.



Threshold of a Service



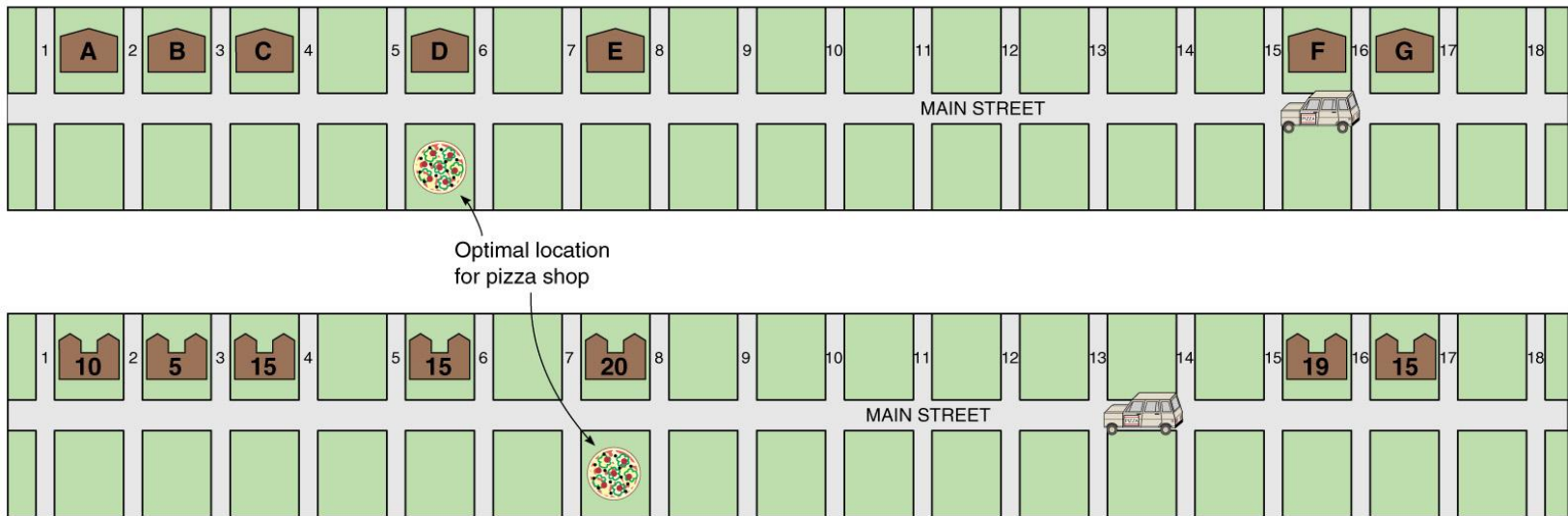
- The second piece of geographic information needed to compute a market area is the threshold, which is the minimum number of people needed to support the service.
- How potential consumers inside the range are counted depends on the product.
- Developers of shopping malls, department stores, and large supermarkets typically count only higher-income people.

Market-Area Analysis

- Retailers and other service providers make use of market-area studies to determine whether locating in the market would be profitable and, if so, the best location within the market area.



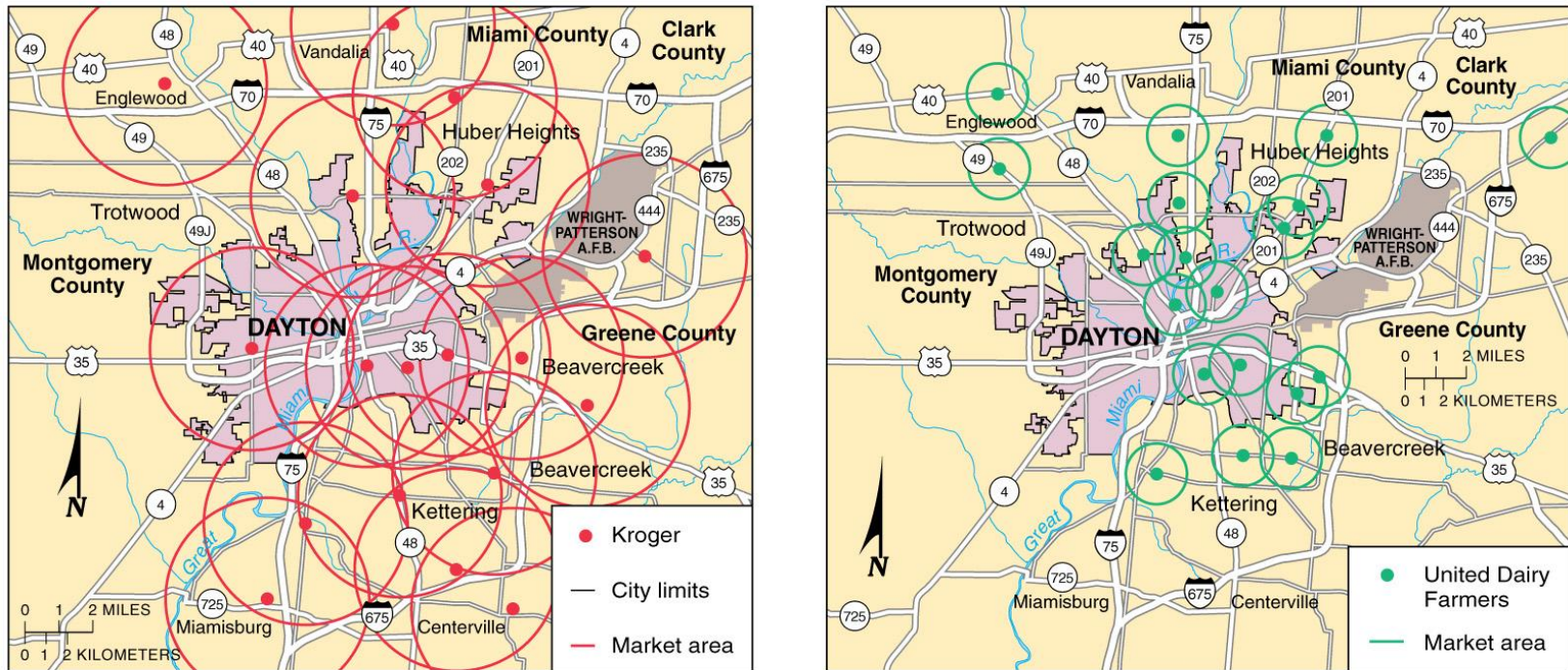
Optimal Location *(for Pizza Shop)*



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Fig. 12-6: The optimal location for a pizza delivery shop with seven potential customers in a linear settlement (top) and with 99 families in apartment buildings (bottom).

Supermarket and Convenience Store Market Areas



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Fig. 12-8: Market area, range, and threshold for Kroger supermarkets (left) and UDF convenience stores in Dayton, Ohio. Supermarkets have much larger areas and ranges than convenience stores.

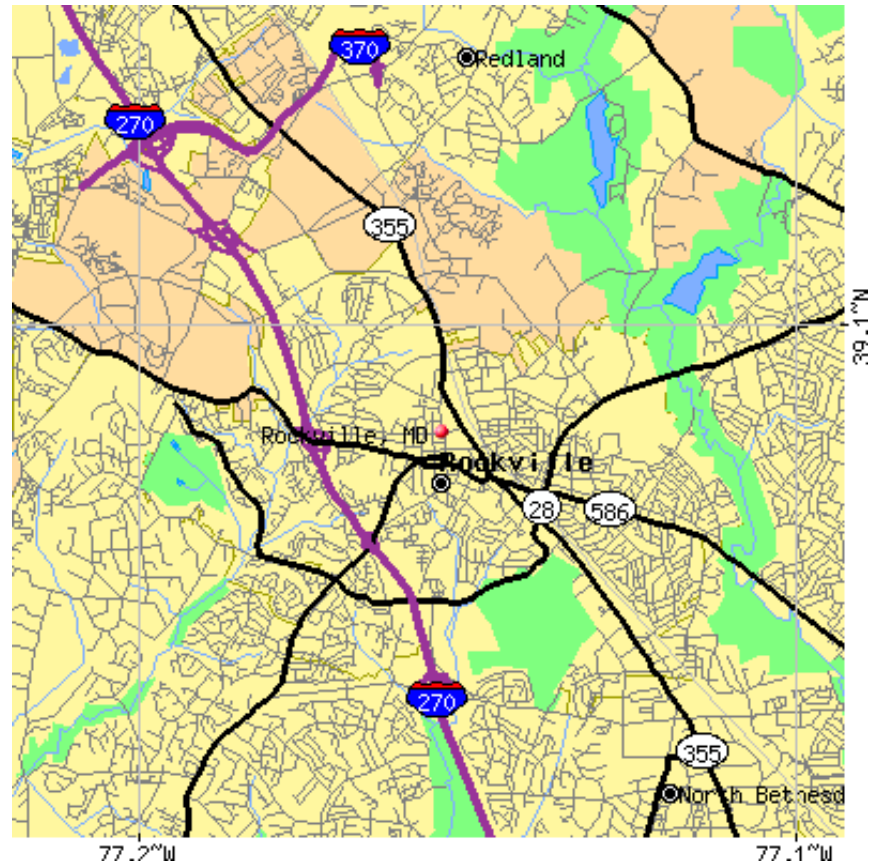
Best Location in a Linear Settlement

- In a linear community like an Atlantic Ocean resort, the service should be located where half of the customers are to the north and half to the south.
- It corresponds to the median, which mathematically is the middle point in any series of observations.
- What if a different number of customers live in each block of the city?
- To compute the optimal location in these cases, geographers have adapted the gravity model from physics.
- The gravity model predicts that the optimal location of a service is directly related to the number of people in the area and inversely related to the distance people must travel to access it.



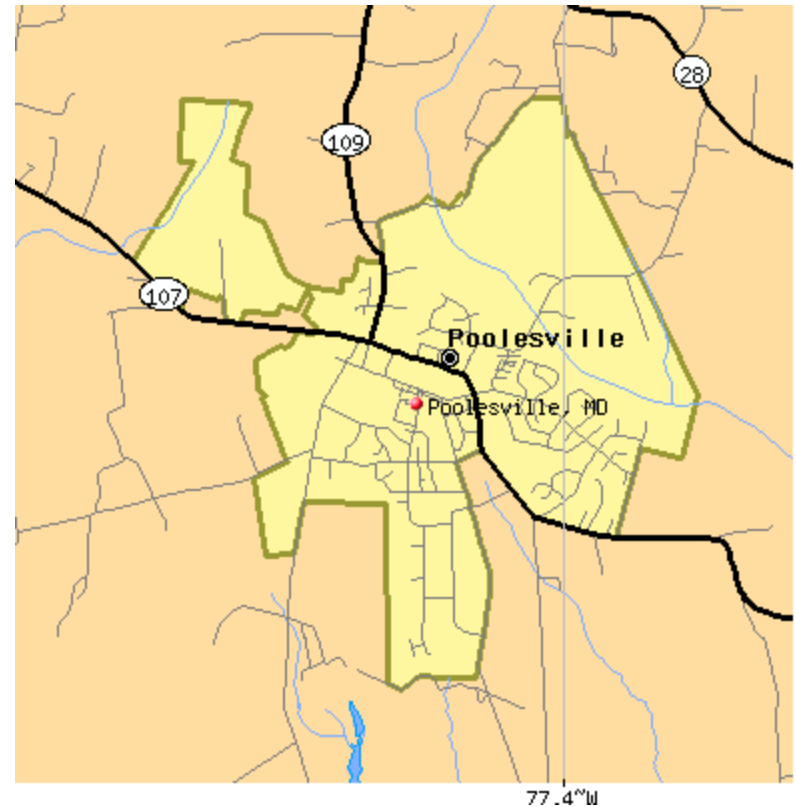
Best Location in a Nonlinear Settlement

- Most settlements are more complex than a single main street.
- Geographers still apply the gravity model to find the best location.



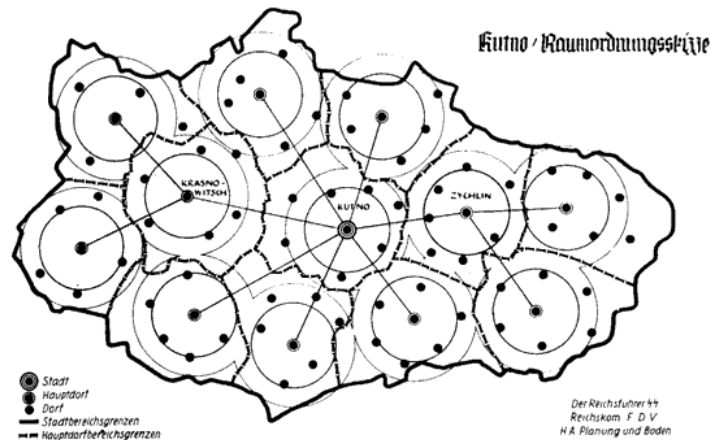
Hierarchy of Services and Settlements

- Small settlements are limited to services that have small thresholds, short ranges, and small market areas.
- Larger settlements provide services having larger thresholds, ranges, and market areas.
- However, neighborhoods within large settlements also provide services having small thresholds and ranges.

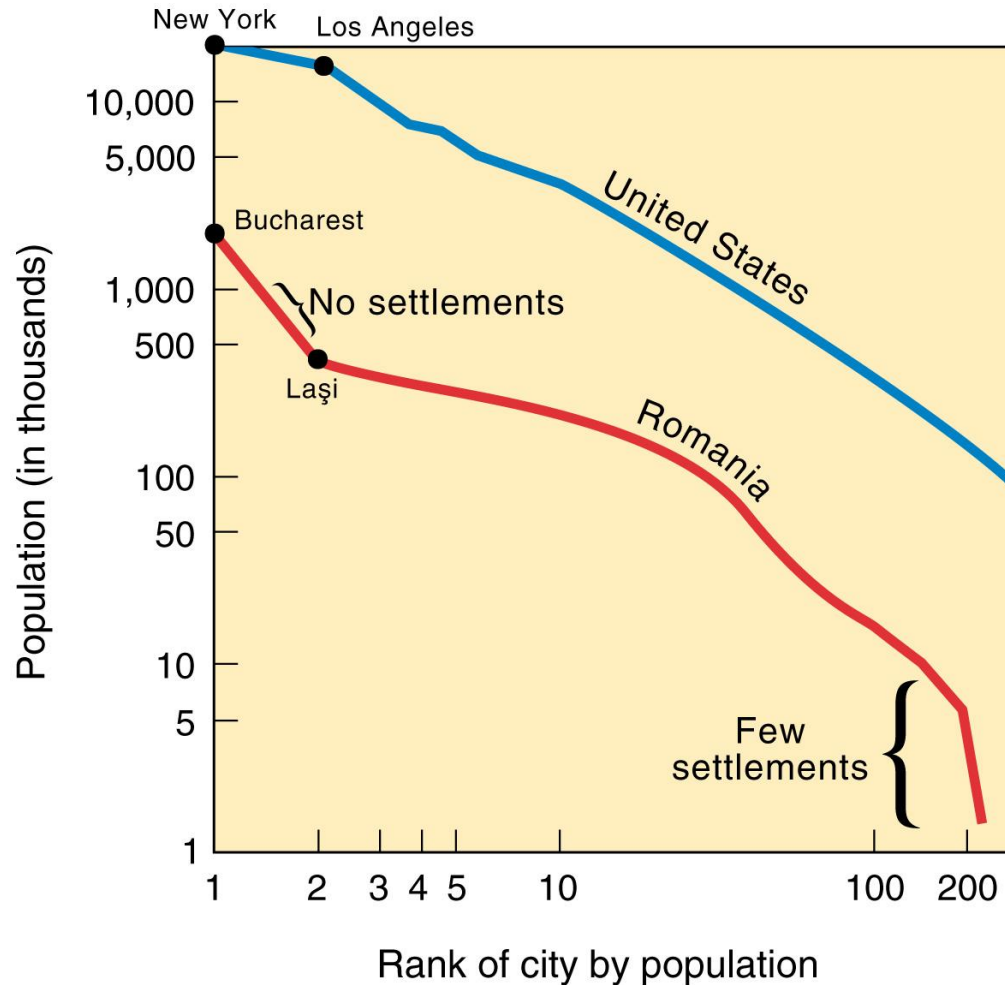


Nesting of Services and Settlements

- More developed countries have numerous small settlements with small thresholds and ranges, and far fewer large settlements with large thresholds and ranges.
- The nesting pattern can be illustrated with overlapping hexagons of different sizes (for) different levels of market area.
- In his original study, Walter Christaller showed that the distances between settlements in southern Germany followed a regular pattern.
- He identified seven sizes of settlements (market hamlet, township center, county seat, district city, small state capital, provincial head capital, and regional capital city).
- Brian Berry has documented a similar hierarchy of settlements in parts of the U.S. Midwest.
- The principle of nesting market areas also works at the scale of services within cities.



Rank-Size Distribution of Cities



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Fig. 12-9: Cities in the U.S. closely follow the rank-size distribution, as indicated by the almost straight line on this log scale. In Romania, there are few settlements in two size ranges.