

Do Now: Monday Oct. 18th

- The minimum number of people needed to support a service is
 - hinterland.
 - range.
 - threshold.
 - median.
 - meridian
- The maximum distance people are willing to travel for a service is
 - hinterland.
 - range.
 - threshold.
 - median.
 - meridian

- Define settlement.
- A settlement is a permanent collection of buildings where people live, work, and obtain services.

- A market area is a good example of what kind of region?
- cultural
- formal
- functional
- uniform
- diverse

- Larger settlements are
- more numerous and closer together.
- more numerous and farther apart.
- less numerous and farther apart.
- less numerous and closer together.
- more numerous and evenly dispersed.

- Residents of rural settlements are more likely than residents of urban settlements to work in
- A) agriculture.
- B) manufacturing.
- C) services.
- D) education.
- E) all of the above

Testing Calendar

- Unit 1 Test: 10/26 10/27
- Chapter 12 and Chapter 13
- Additional materials from notes
- Study Guides to be posted on the website
- Middle East map quiz: 10/29 see website for the specific countries that you need to know and links to practice

Objective: 10/18

- We will examine how geographers use models to predict the distribution of settlements and services
- We will identify how the distribution of services and settlements impacts the lives of people living in MDCs vs. LDCs

Edge City

- Suburban cities on the outskirts of central city.
- 1. The area must have substantial office space (about the space of a good-sized downtown) & substantial retail space (the size of a large regional shopping mall);
- 2. The population must rise every morning and drop every afternoon (i.e., there are more jobs than homes);
- 3. The place is known as a single end destination (the place "has it all;" entertainment, shopping, recreation);
- 4. The area must not have been anything like a "city" in 1960 (cow pastures would have been nice).

Models of Urban Distribution and Location

- Models that attempt to explain why are specific services where they are in a city vs. the surrounding rural areas
- Rank Size Rule
- Central Place Theory

Rank Size Rule

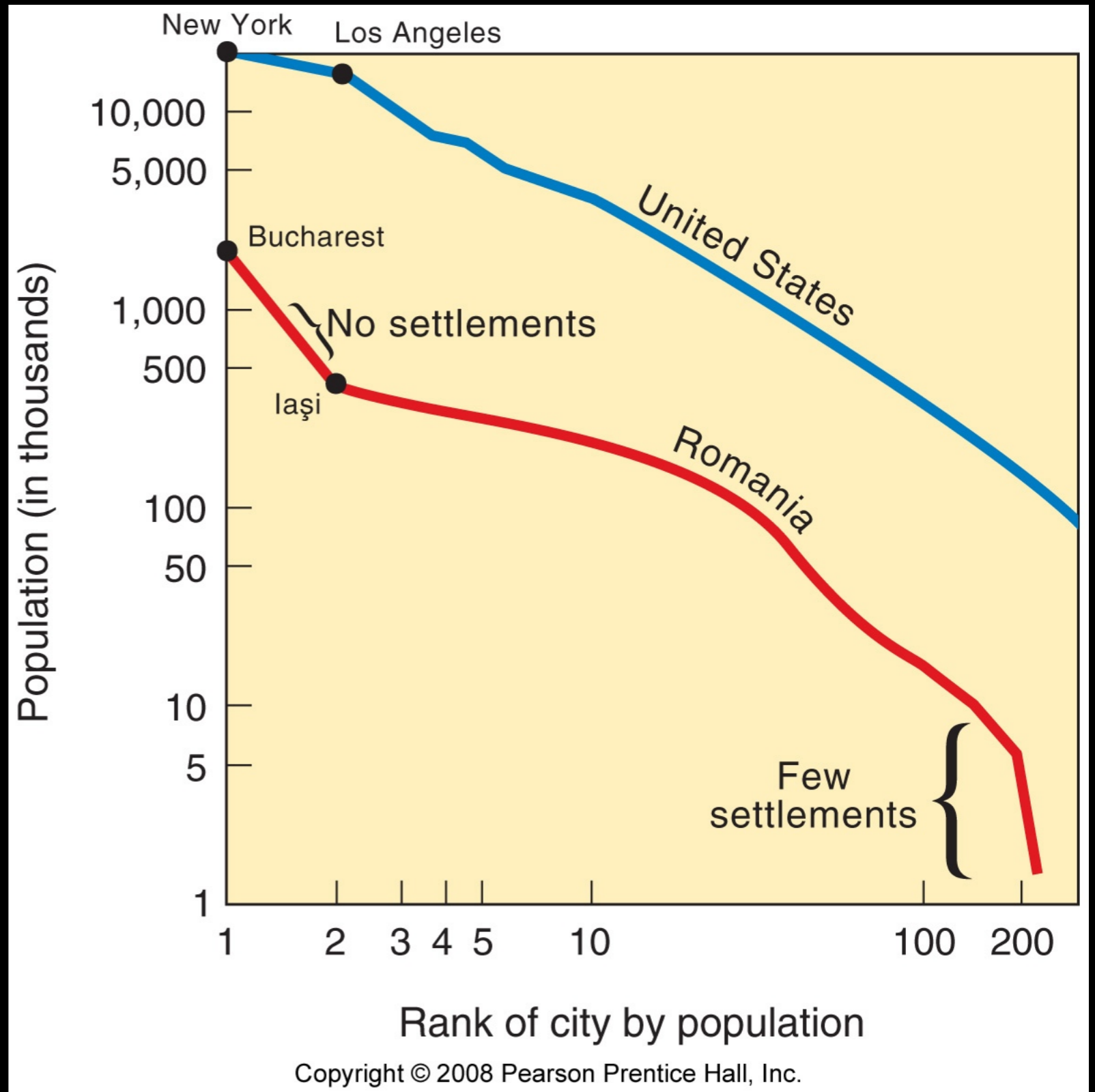
- pg. 410
- George Zipf in 1949.
- A theory that the ideal urban system would have a regular pattern of settlements from biggest to smallest
- Population of a city is inversely proportional to its rank in the hierarchy
- $1/R \times \text{Population of Largest City}$
- $R = \text{rank}$

Rank Size Rule

- Second largest city is have the size of the largest.
- Fourth biggest city is $1/4$ the size of the largest.
- etc.

Rank Size Rule

- Which country has the rank-size distribution of settlements?
- Why do you want rank-size distribution?



Primate City Rule

- MDC's that follow the rank-size distribution among smaller settlements, but not among larger ones
- Primate City: largest settlement has more than twice as many people as the next biggest settlement.

Primate Cities

- Examples of Primate Cities:
- Paris (9.6 million) is definitely the focus of France while Marseilles has a population of 1.3 million.
- Mexico City, Mexico (21.2 million) is significantly larger than 2nd largest Guadalajara (1.6 million).



Rank-Size Rule: What does it mean for peoples' lives?

- A regular hierarchy of settlements shows that the society has an even distribution of various order services - for example, it might only take someone living outside a city 10-15 minutes to reach a doctor.
- In LDC's, unequal distribution means in some areas, people have to travel further to get higher order services such as medical care, education, or Ferraris.
- Most people in LDCs don't have cars - so they will have to travel likely for hours to obtain these services.



Central Place Theory

- The theory that explains the distribution of services, based on the fact that settlements serve as centers of market areas for services; larger settlements are fewer and farther apart than smaller settlements and provide services for a larger number of people who are willing to travel farther

Central Places

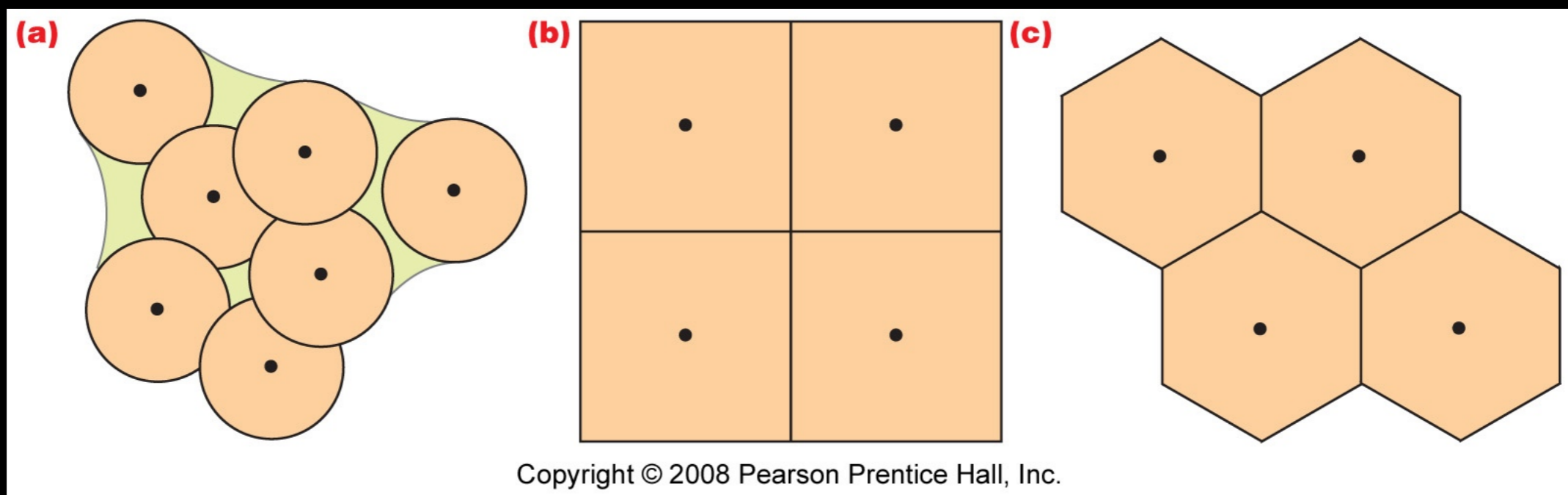
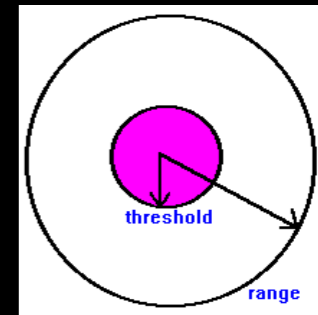
- **Central places:** urban centers that provide services to surrounding rural people called the hinterland
 - aka: village, hamlet, town

CPT: Assumptions

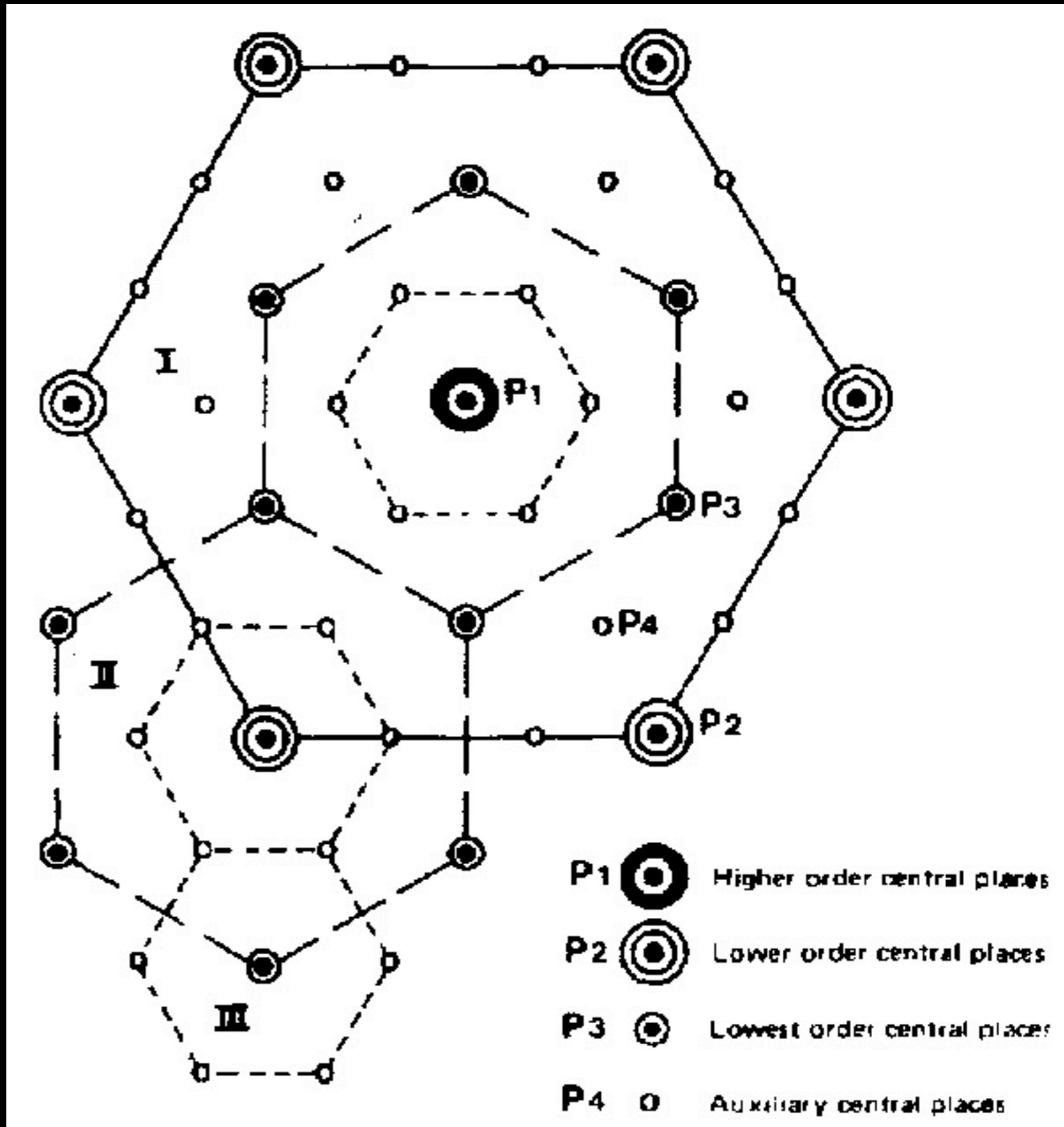
- Area has no variation in topography or climate
- Rational behavior - people want to minimize distance they travel to obtain service
- Even distribution - of population & resources
- All consumers have similar purchasing power
- Equal competition between goods and services*
- Transportation costs are equal in all directions

Central Place Theory

- How do you calculate the market area, or hinterland of a given service? What shape would it be?
- Range
- Threshold



- Low order services (bread, gas)
- High order services (mac store, Ferrari dealership)





**The Contiguous United States
Visualized by distance to the nearest McDonald's**

by Stephen Von Worley • September 2009

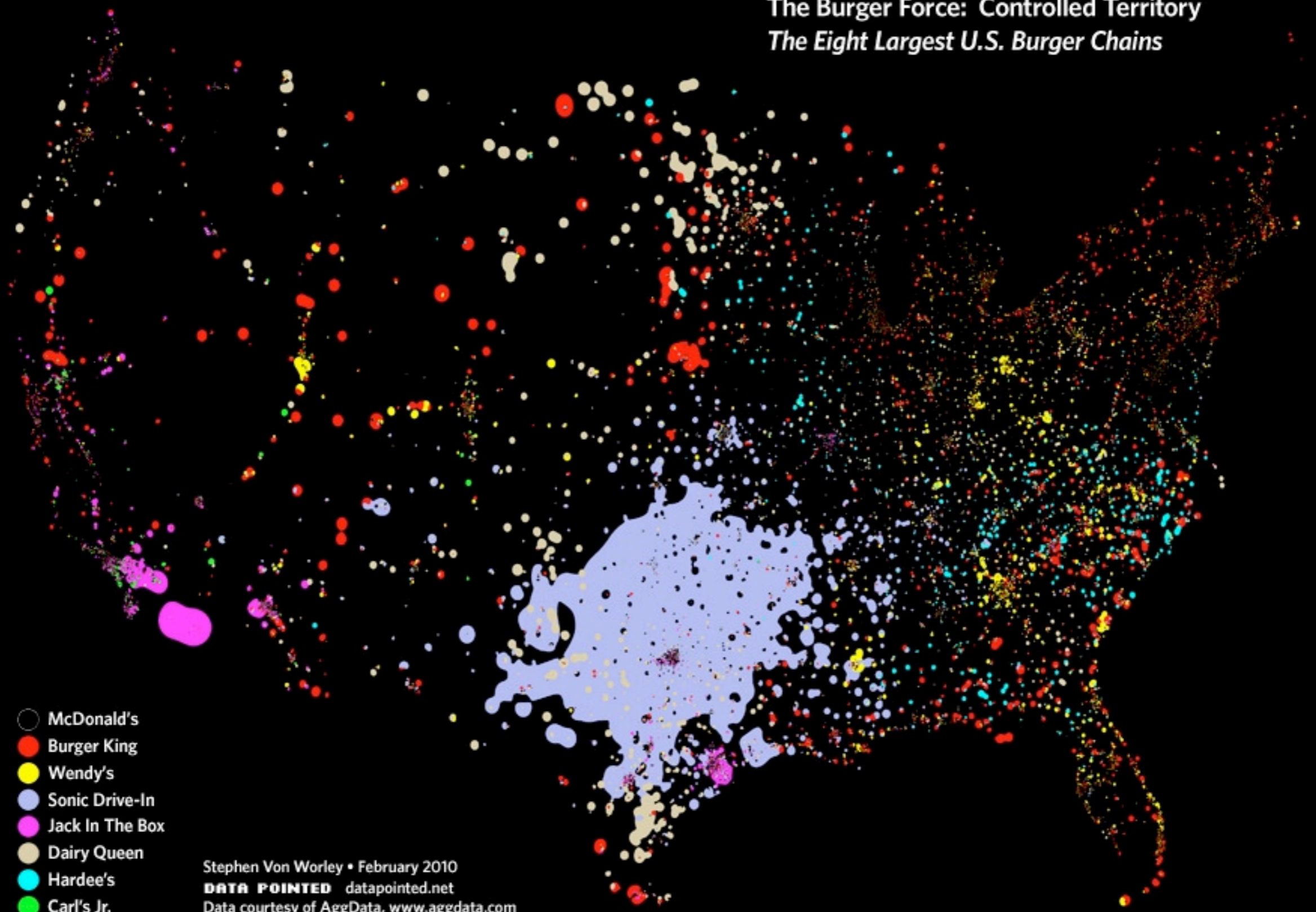
DATA POINTED datapointed.net

Location data courtesy of AggData

<http://www.aggdata.com/>

The Burger Force: Controlled Territory

The Eight Largest U.S. Burger Chains



- McDonald's
- Burger King
- Wendy's
- Sonic Drive-In
- Jack In The Box
- Dairy Queen
- Hardee's
- Carl's Jr.

Stephen Von Worley • February 2010
DATA POINTED datapointed.net
Data courtesy of AggData, www.aggdata.com

CPT: Relevance

- This is a model, not reality
- Use of hexagons explain hierarchy and interconnectedness of places
- Originally applied to Germany
- Found to be applicable in China and the Midwestern US

CPT: Limitations

- Large, contiguous areas of flat land rarely exist
- There are many forms of transport - cost does not equal distance
- People and wealth are not evenly distributed
- People do not always go to the nearest good or service
- Services and goods are not all equal competitors

So why use it?

- Use this idea of the equal distribution of services in planning new communities so that all people have access to important high order services and goods
- Just by looking at the model forces us to compare the model vs. reality - by explaining the difference we better understand the distribution of goods and services in urban settlements

Exit Ticket

- In your own words, summarize the following models:
 - Rank Size Rule
 - Central Place Theory