Cities!!!!!

Human Development Index (HDI)

HDI - A numerical way of measuring the development of a country that looks at **more** than just economic factors.

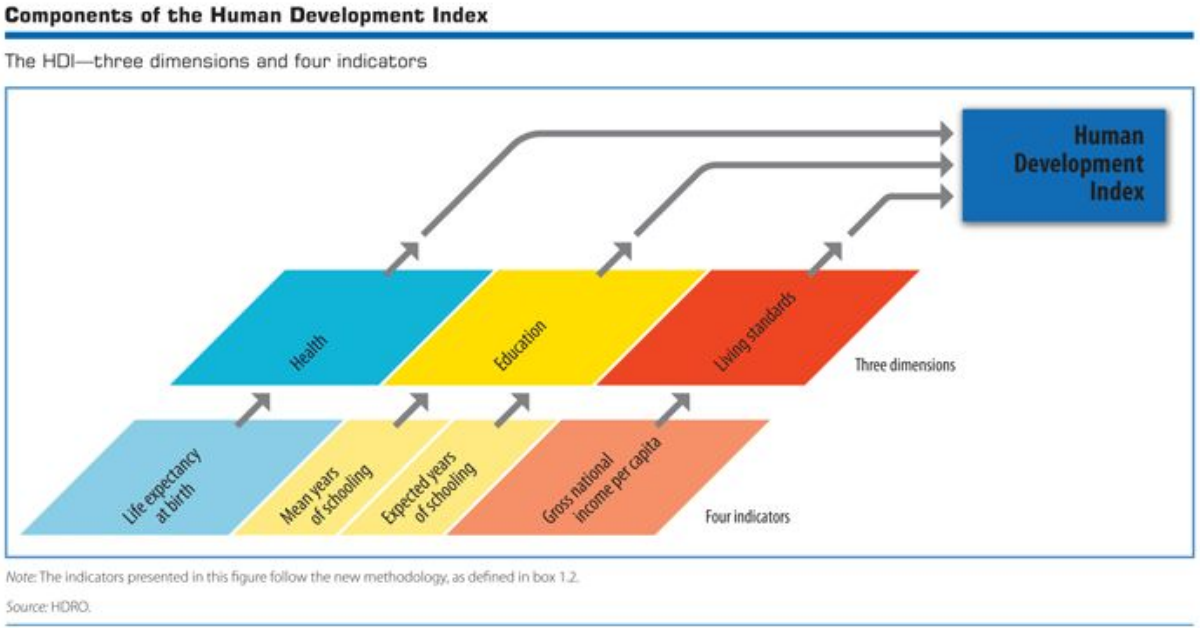
Here are 3 components that are measured with HDI: Pg 149-150

Demographic	
Social	
Economic	

Development

Development: the process of improving the material conditions of people through diffusion of knowledge and technology.

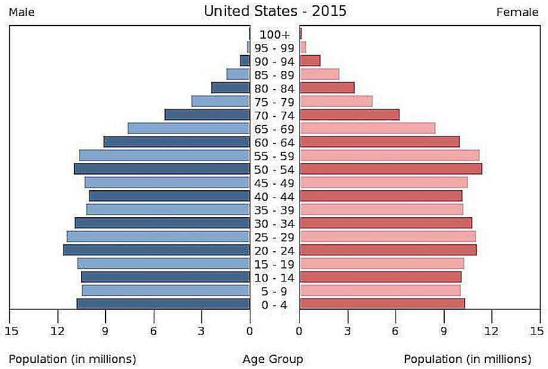
- Continuous
- You CAN go backwards
- Measure of the health and economic strength (industrialization, GDP) of a country



What three components are represented in the HDI?

HDI Factors - use these in your packet

Demographic - Average Life Expectancy - The average of how long people in a country will live.



HDI Factors - use these in your packet

Social - 2 factors

- The average number of years a child will go to school
- The average number of years someone over 25 went to school

HDI Factors - use these in your packet

Economic - Gross National Income per capita adjusted by Purchasing Power Parity

In other words...
The wealth of a nation divided by the number of people, adjusted for how much stuff costs in that country.

MDC Vs. LDC/Countries

More Developed Nation: has progressed further along the UN HDI continuum (.8-1.0)

- High standard of living (health, quality of life, etc.)
- Well-educated population
- Long life-expectancy

Less Developed Nation: has made some progress along the UN HDI continuum but its progress is less compared to developed nations (0-.6)

- Relative: What counts as "developing" varies widely!
- High, medium, and low
- Stagnant

Current HDI Rankings

Highest HDI Rankings in 2018

HDI Ranking	Country	Human Development Index (HDI)	Life expectancy at birth	Expected years of schooling	Mean years of schooling	Gross national income (GNI) per capita (2011 PPP $)
1	Norway	0.953	82.3	17.9	12.6	68,012
2	Switzerland	0.944	83.5	16.2	13.4	57,625
3	Australia	0.939	83.1	22.9	12.9	43,560
4	Ireland	0.938	81.6	19.6	12.5	53,754
5	Germany	0.936	81.2	17.0	14.1	46,136
6	Iceland	0.935	82.9	19.3	12.4	45,810
7	Sweden	0.933	82.6	17.6	12.4	47,766
7	Hong Kong, China (SAR)	0.933	84.1	16.3	12.0	58,420
9	Singapore	0.932	83.2	16.2	11.5	82,503
10	Netherlands	0.931	82.0	18.0	12.2	47,900

How did we used to measure countries?

1st world: Wealthier countries with more money. Often were part of the Western world democracies.

2nd world: Industrialized through communism and a part of the Soviet Union.

3rd world: Not industrialized and less wealthy. Not part of the Soviet Union or Western allies

What are some reasons HDI is a **better** measurement system? Q: 2 Pg. 149-150

Agenda 10/22

As you walk in…
Find your assigned seats

-Urbanization “How are cities made/defined?

Before you leave…
❑ Study guides must be done **Through** page 2.

What is ‘Urbanization’?

Urbanization: The movement of people from rural areas to those with higher population densities.

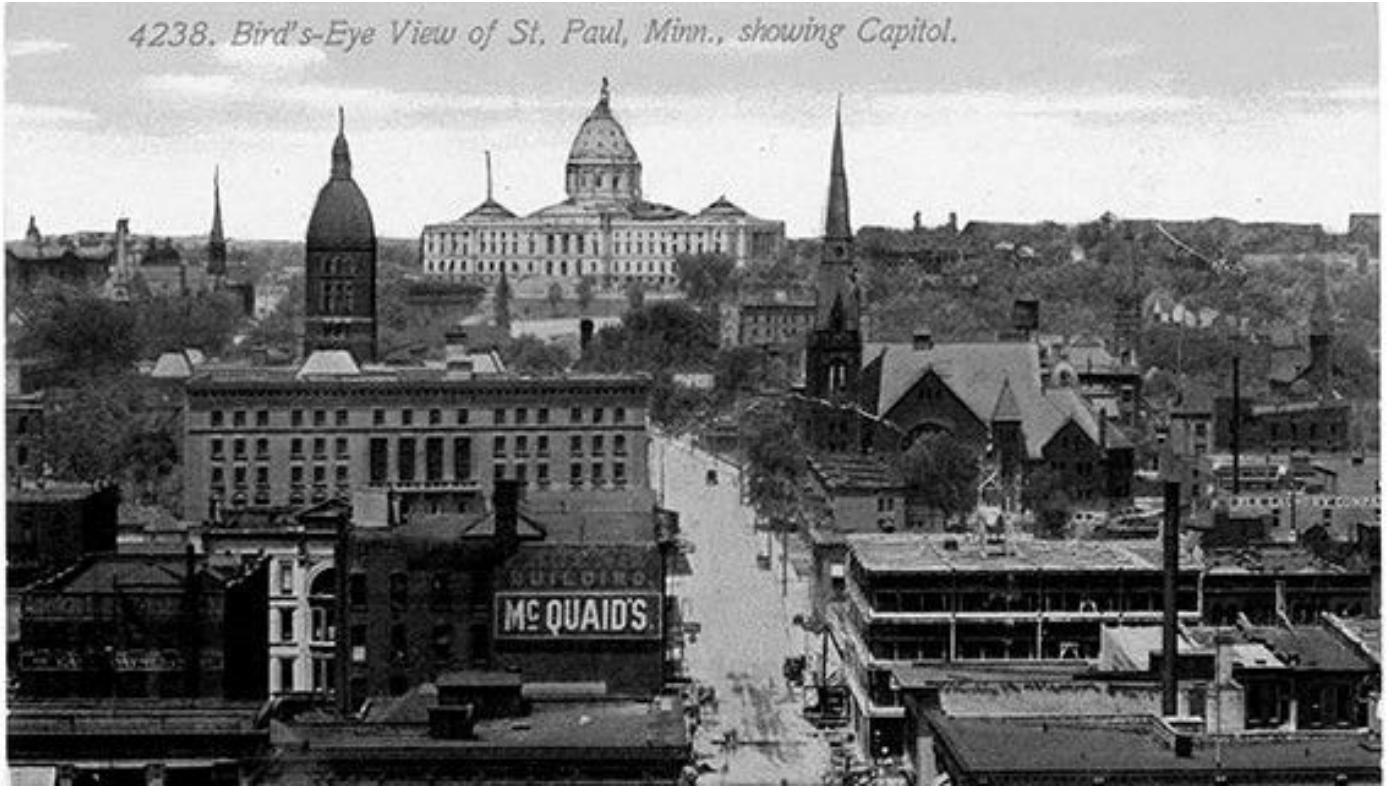
“People moving to the city.”

Urban = City

Rural = Farm

What does Urbanization look like?

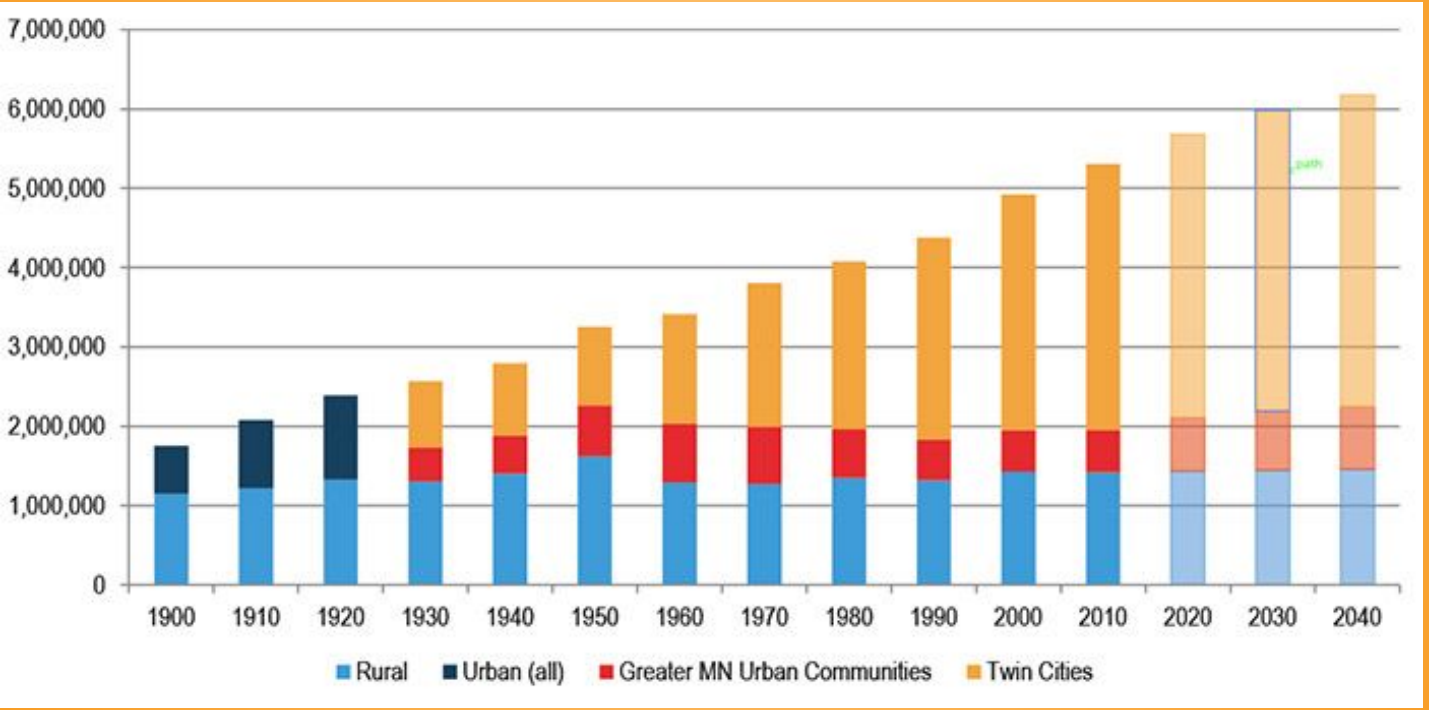
St. Paul (Early 1900's)



St. Paul Today!

What do you think happened to St. Paul’s population?

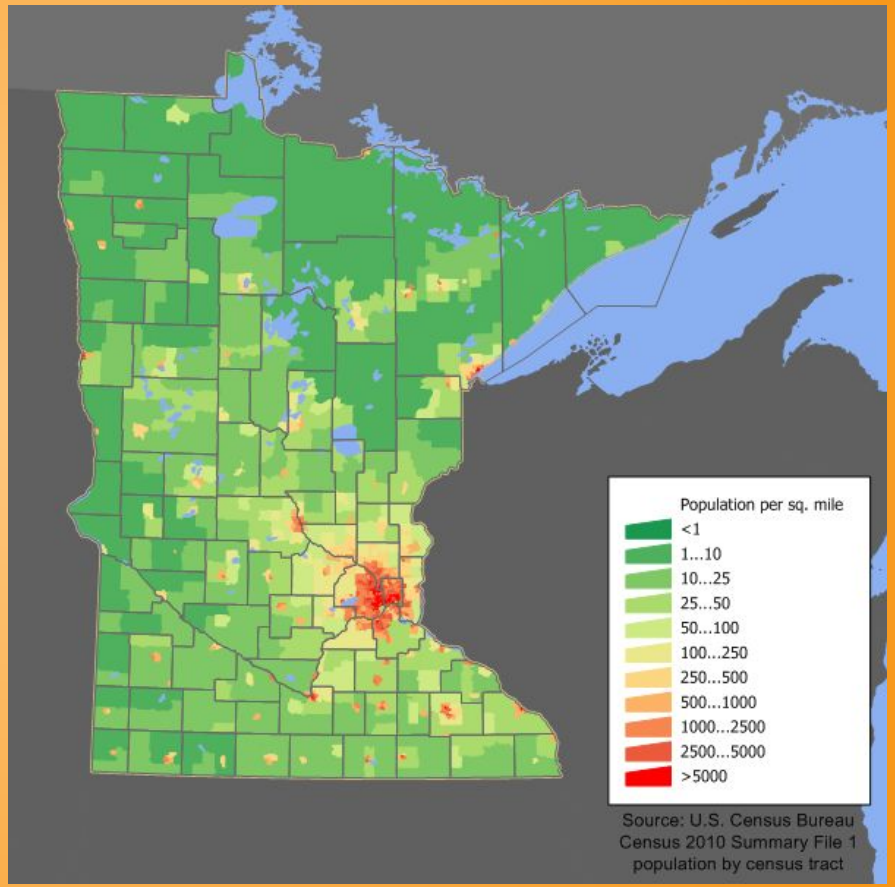
Twin Cities Population



Population density

Where do you notice greatest density?

Which other areas are urbanizing?



What is a “trend”

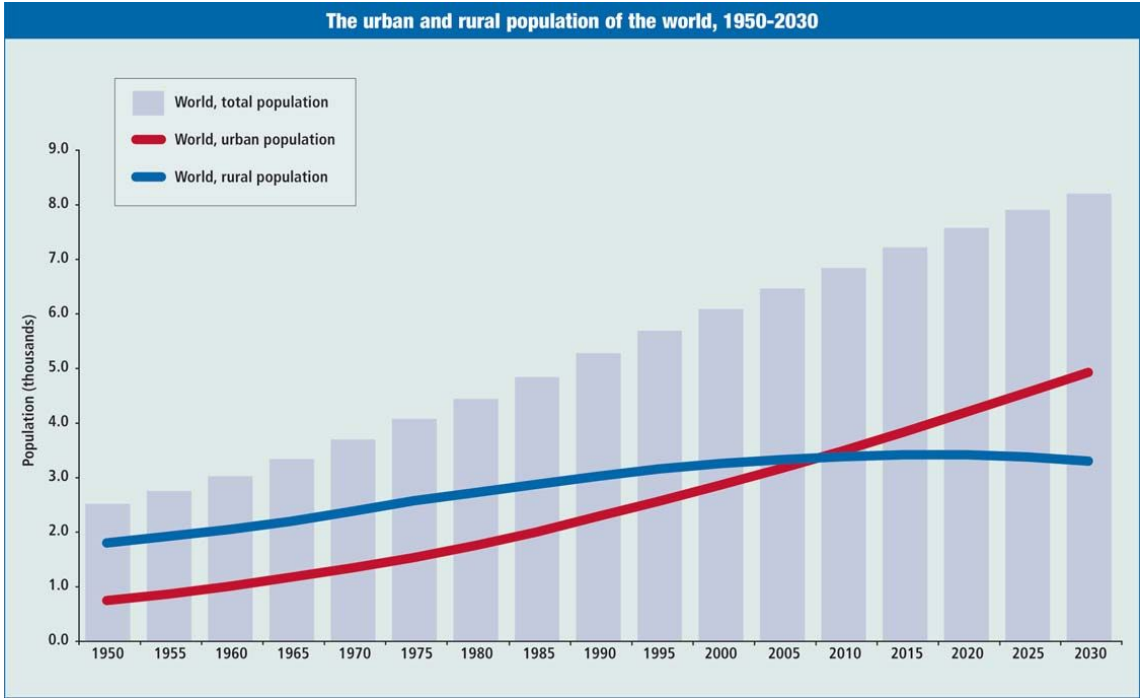
A **trend** is a general pattern in a particular direction. In our case, it usually is an answer to “what happens to a place over time”

Examples:

Population is going up over time

Net Migration in the United States has been positive

What is the trend in urbanization?



Urbanization in the world 1950-2030

What made cities possible?

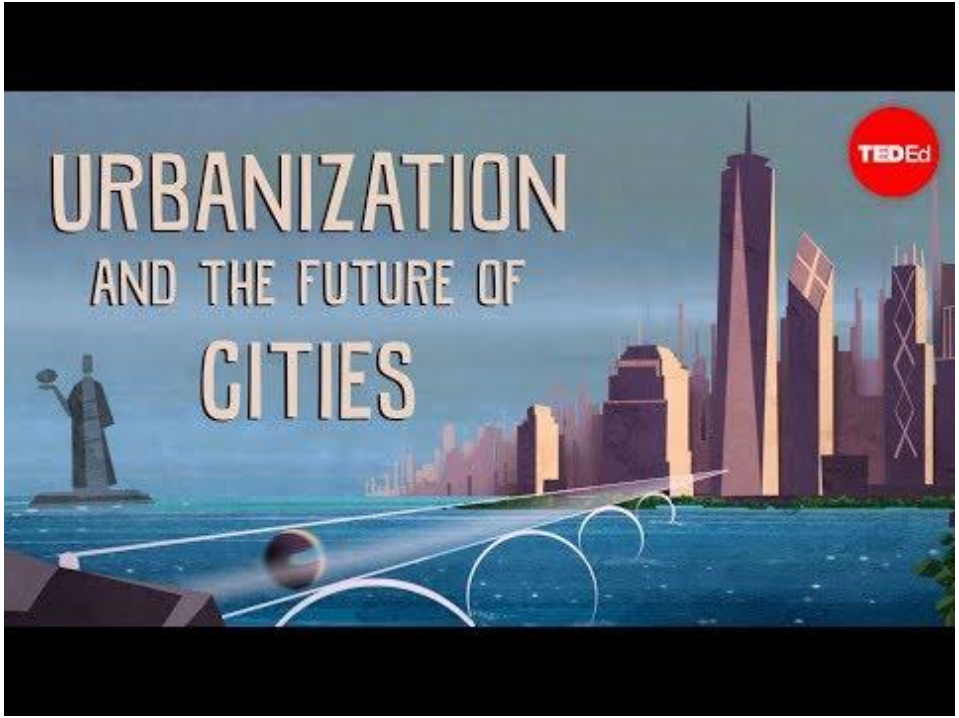
The Neolithic Revolution

People learned how to domesticate plants and animals. That means that people learned how to be farmers.

When people became farmers they stopped being nomadic and stayed in one place.

Over time, as people grew more food, the population went up (they didn't starve). These places they stopped in became the first cities.

Urbanization and the Future of Cities - Ted ED



1. How did improvements to farming techniques help in the development of cities?
2. Describe how the production of goods contributed to the growth of cities.
3. What are some of the opportunities and challenges that cities will face as the population increases?

What is a city?

City - A densely populated area

The definition of ‘densely’ depends based on the country.

USA defines a city as an area with more that 2,500 people.

A city can have many different parts...

Central Business District (CBD)	Symbolic center for business and entertainment. Can be found by its tall and modern buildings
Squatter Settlements	Less developed areas of a city where people live illegally - often these are for new migrants to cities who can't afford to live anywhere else
Suburbs	Residential areas located around the city. People often live in the suburbs and commute to the CBD for work

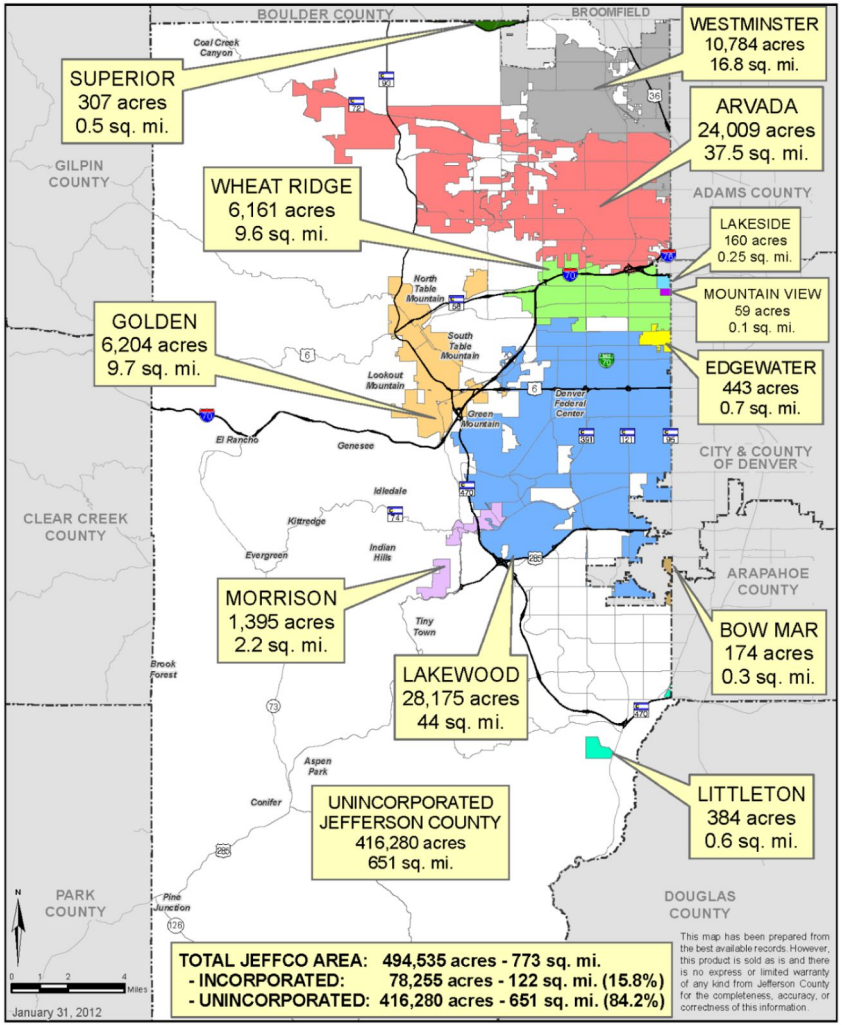
CBD-Central Business District

Singapore

Suburb

Chicago - skyline

Central Business District - City Centre



What do city governments do?

A **city** that has been organized or "incorporated" and is recognized by a county or state as a legal entity. Cities have **city limits** that specify where the borders of a city are - this can help limit growth. Within the city limits, the government of the city can then set up services for residents (the people who live there).

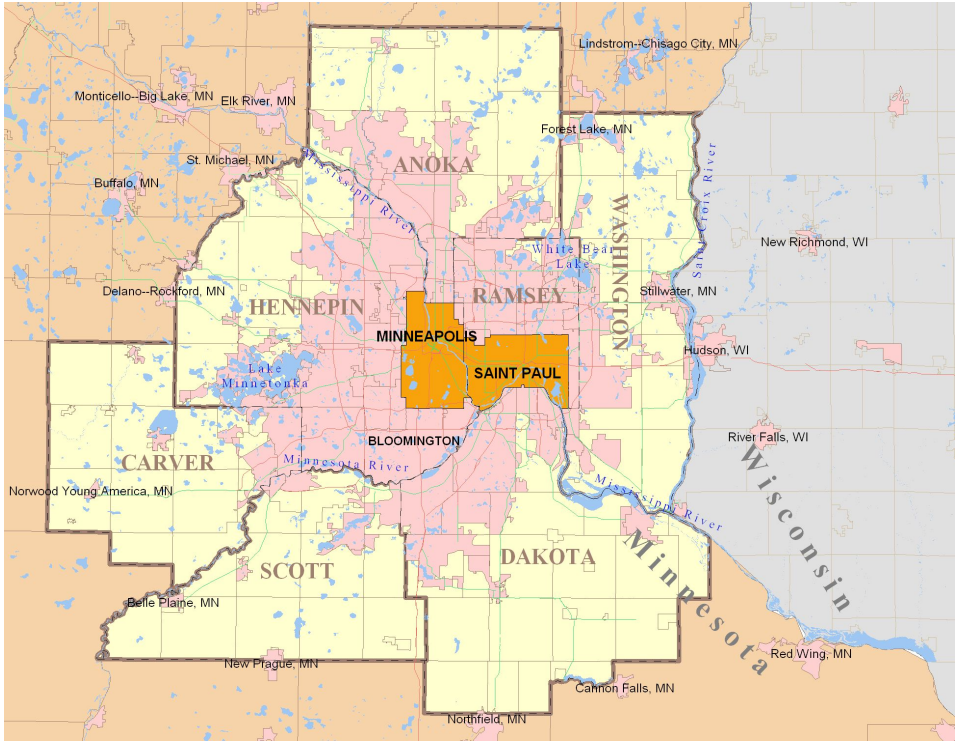
These services include things like sewers, water treatment, police, and firefighting. In some cities they also include libraries and schools.

What is a Metropolitan Statistical Area?

An MSA is defined as an area with a central city that has 50,000 people or more. It includes the surrounding counties.

You live in an MSA based in Minneapolis and St. Paul. The 7 County Metro area is an MSA.

There are about 420,000 people in Minneapolis and 300,000 people in St. Paul but there are over 3.2 million people in the whole 7 county MSA.



What is a Metropolitan Statistical Area?

An MSA is defined as an area with a central city that has 50,000 people or more. It includes the surrounding counties.

The City of Los Angeles has about 4 million people but the Los Angeles MSA has almost 19 million people.

(Most people who “live in” LA don’t actually live in the City of Los Angeles.)

Mr. Rosivach went to college with the current mayor of LA, Eric Garcetti

Megacities Reflect Growing Urbanization Trend

Seoul, South Korea - Population 25,600,000

A MEGACITY is a city that has more than 10 million (10,000,000) people in it. Right now there are 46 megacities in the world.

The whole state of Minnesota has less than 6 million people.

Megacities Reflect Growing Urbanization Trend (This video is from 2010)

1. What percent of the Earth's population is living in cities?
2. What is a megacity?
3. What are some of the challenges facing Dhaka as its population grows?
4. What are the "two worlds" that have developed in Dhaka? (5:20)
5. What solutions does the video present to help disrupt this trend in Urbanization?

Top 10 Megacities in the World

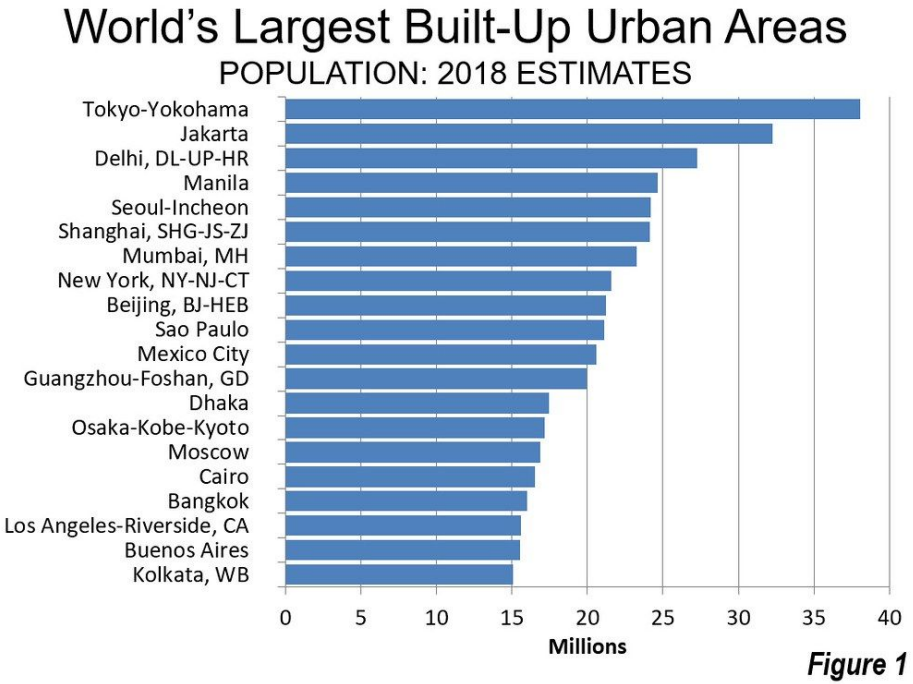
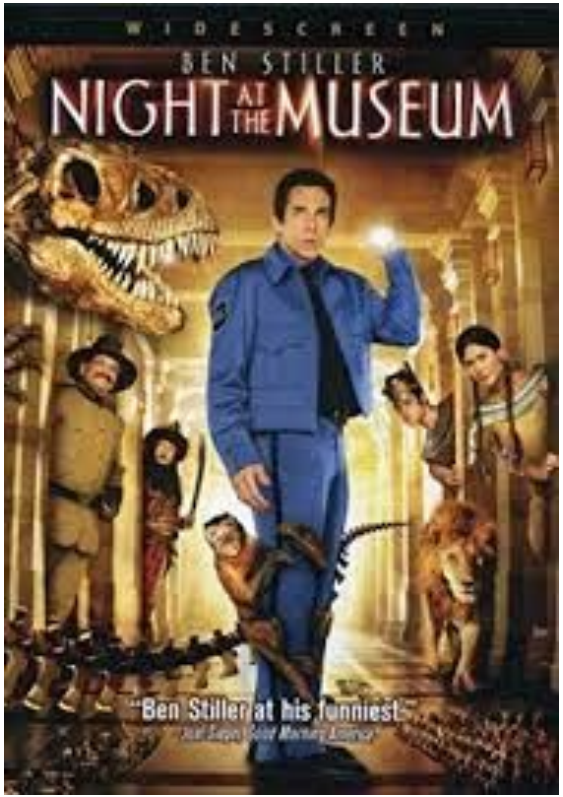


Figure 1

What makes something a World City?

Have an influence on culture or finance that is more important than their population size

New York's Museum of Natural History (culture)

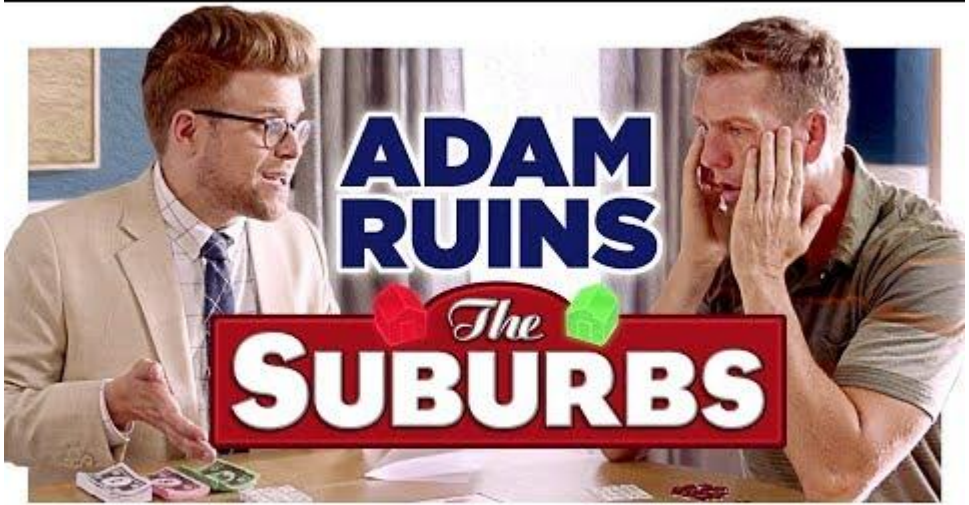


What makes something a World City?

Wall Street - New York - Finance

Hollywood - Los Angeles - Movies and TV

Creating suburbs in the US.



The “Suburbs” are a relatively recent invention. They were made possible by developments in transportation.

This pattern was especially true in the United States after World War II.

One key to the development of the suburbs was the availability of cheap cars.

Another factor was the availability of low interest government home loans

Many Parts of the World Are Not Able to Urban Plan

Creating slums outside large cities

Called *favelas* when referring to South America

New Urbanism - a planning and development approach based on the principles of how cities and towns had been built for the last several centuries: walkable blocks and streets, housing and shopping in close proximity, and accessible public spaces.

As a way to get people to move back into cities (instead of leaving for the suburbs…) urban planners are using environmentally friendly measures

- Mixed zoning (such as having commercial shops located under residential areas)
- Minimize time traveling to and from stores

Two Main Principles of New Urbanism

1. Establish a sense of community
2. Work with the environment both through design and practice

Urban Renewal vs. Gentrification (page 2-3)

Urban Renewal

Taking old parts of a city and tearing them down to build new, modern buildings (could be residential/housing) or for businesses.

Ex. Paris in the 19th century, Warehouse district in St. Paul

Gentrification

Taking low income parts of a city and rebuilding them to try to attract more high income residents.

Ex. Redeveloping housing (flipping houses), adding new high density housing,

Effects:Often these are very similar - the people who used to live in these places can not afford to stay there

Urban Air Pollution

Denver's Brown Cloud - June 2016

Beijing Airport - Middle of the day looks like sunset - June 2017

Urban Air Pollution

Outdoor air pollution involves exposures that take place outside of the built environment. Examples include:

- Fine particles produced by the burning of fossil fuels (i.e. the coal and petroleum used in energy production)
- Noxious gases (sulfur dioxide, nitrogen oxides, carbon monoxide, chemical vapors, etc.)
- Ground-level ozone (a reactive form of oxygen and a primary component of urban smog)

What health effects are linked to air pollution?

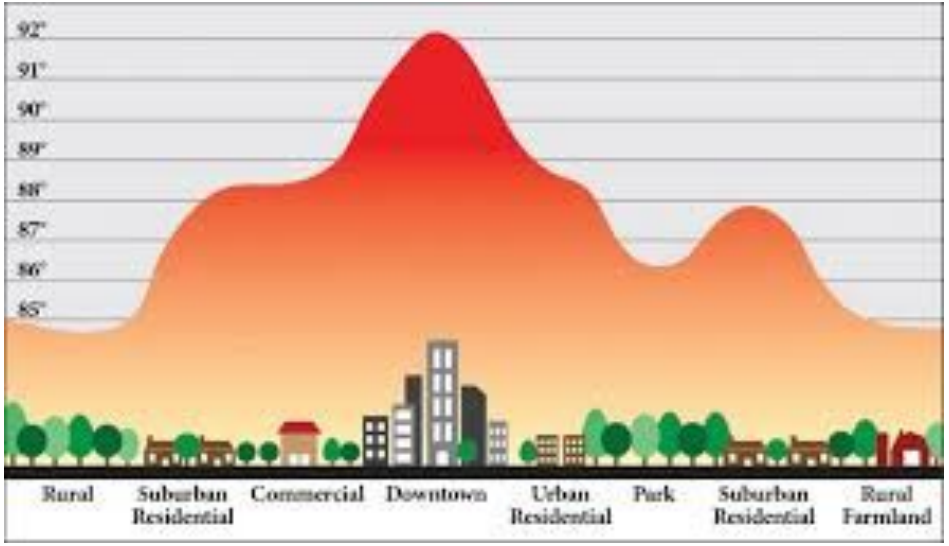
Over the past 30 years, researchers have unearthed a wide array of health effects which are believed to be associated with air pollution exposure. Among them are respiratory diseases (including asthma and changes in lung function), cardiovascular diseases, adverse pregnancy outcomes (such as preterm birth), and even death.

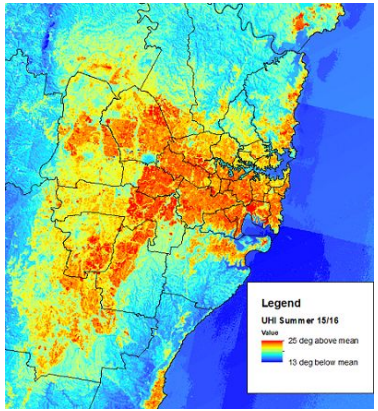
In 2013, the World Health Organization concluded that outdoor air pollution is carcinogen to humans.

Source: https://www.niehs.nih.gov/health/topics/agents/air-pollution/index.cfm

Urban Heat Island Effect

- A condition where the urban area can be warmer than the surrounding areas due to human activities
  - Driving, industry, heating buildings, using machinery, etc…
- Smaller cities may be 5 degrees warmer than the surrounding areas
- Larger cities may be 20 degrees warmer than surrounding areas
- Can affect weather patterns





Smart Growth - laws passed to decide where a city will expand to limit destruction of farmland and nature areas

London has used ***greenbelts*** to limit destruction by protecting areas from development

<u>Zoning laws:</u> planning and limiting growth by creating zones for usage (commercial, residential, industrial, undeveloped…)

<u>Green Spaces</u> - undeveloped sections within a city or on its outskirts where people can enjoy nature and relaxation

-may be parks, gardens, sports fields, or open green areas

-bike, jog, youth/adult sport leagues, walk, fish

14. Why do city planners include green spaces in their designs? (p. 82)

Commuter Roads - large roads, highways, or freeways that are designed to get people into and out of the city as quickly as possible

-have limited stoplights and stop signs

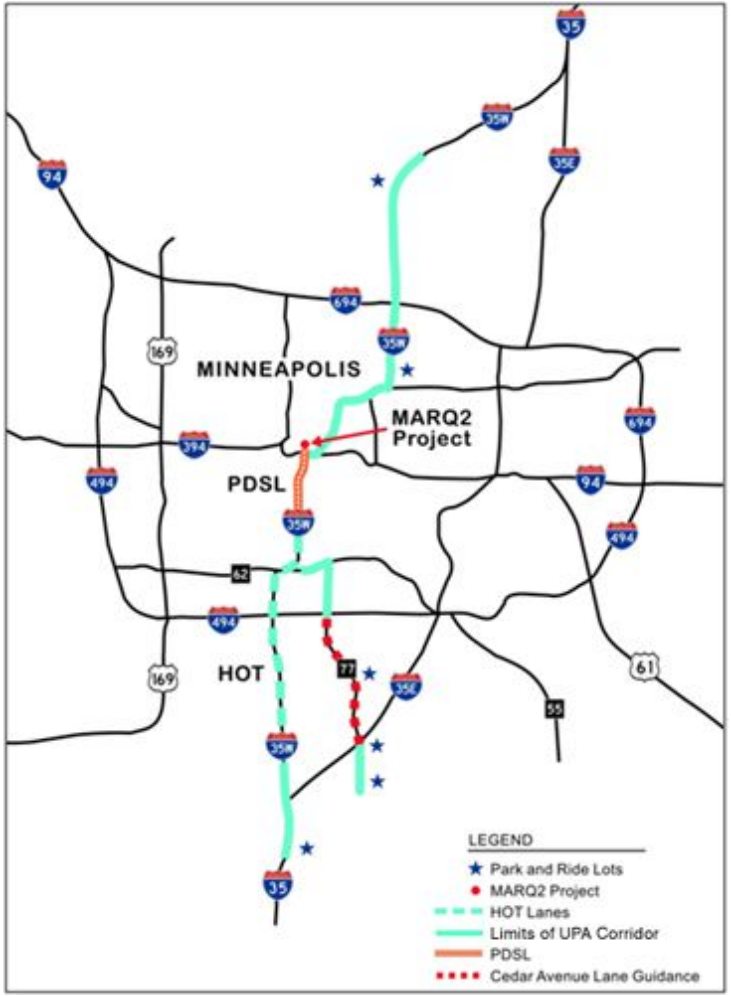
-reduce traffic jams

-fairly straight

-well maintained and updated

15. Explain why road organization and maintenance such a major consideration for city planners. (p.82-83)

Commuter roads



Smart Cities

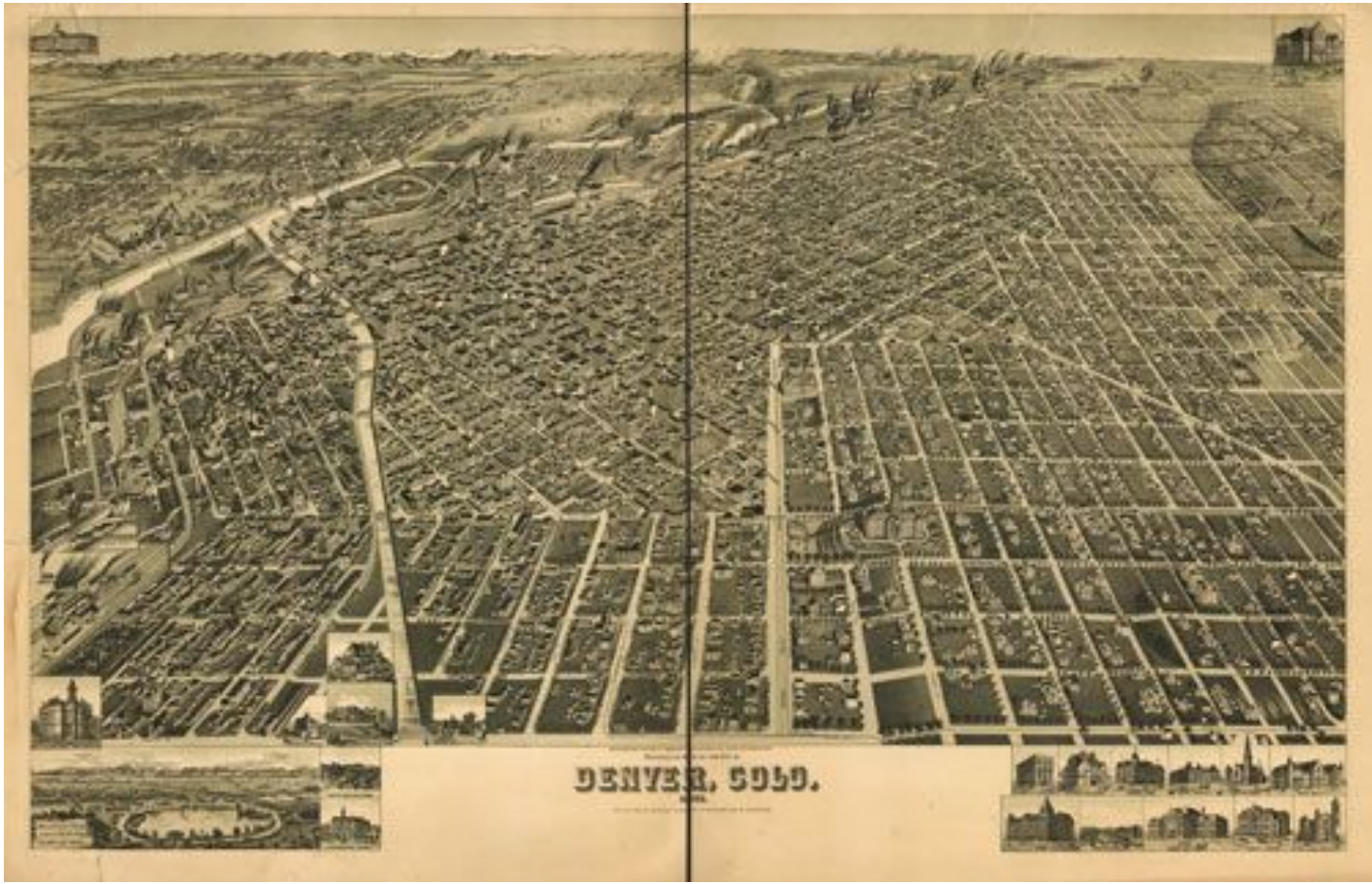
16. Describe how environmental considerations can affect city design- use at least one city as an example (p. 83-84)

- Cape Town, South Africa - limited available space due to Table Mountain
- New Orleans, Louisiana - has to be conscious of flooding
    - Levees, pumps, canal design
- Many Minnesota towns along rivers must consider spring flooding
- More examples?

Grid Systems - not the original plan

New York - 1847 - click here to go to the interactive

Grid Systems - not the original plan

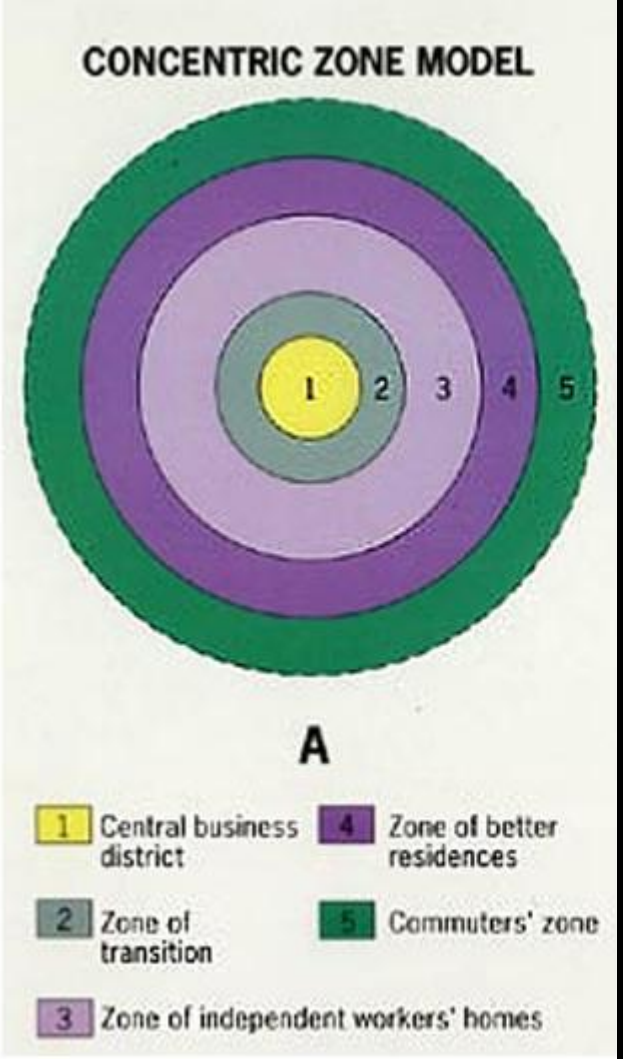


Denver, 1889

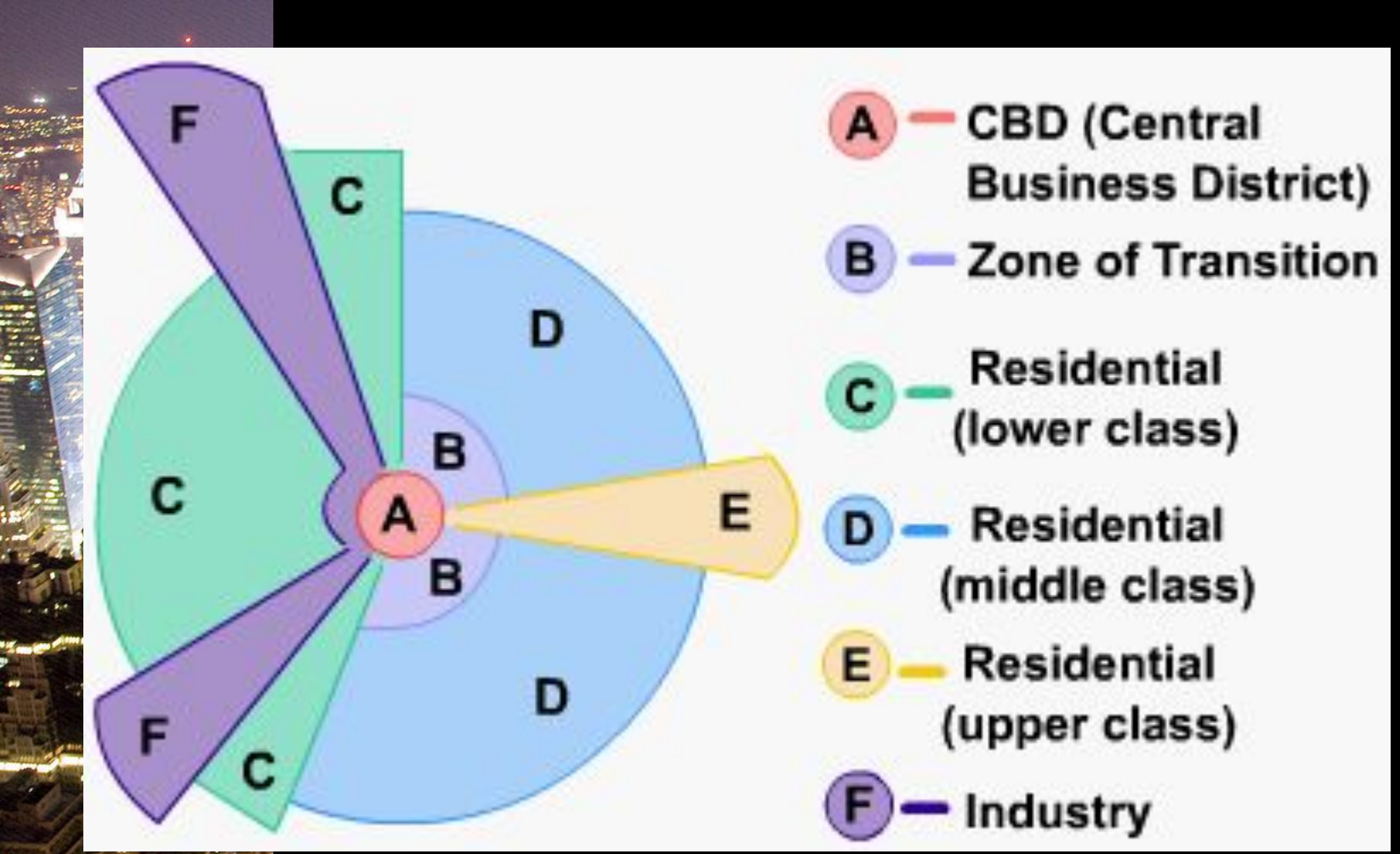
Agglomeration

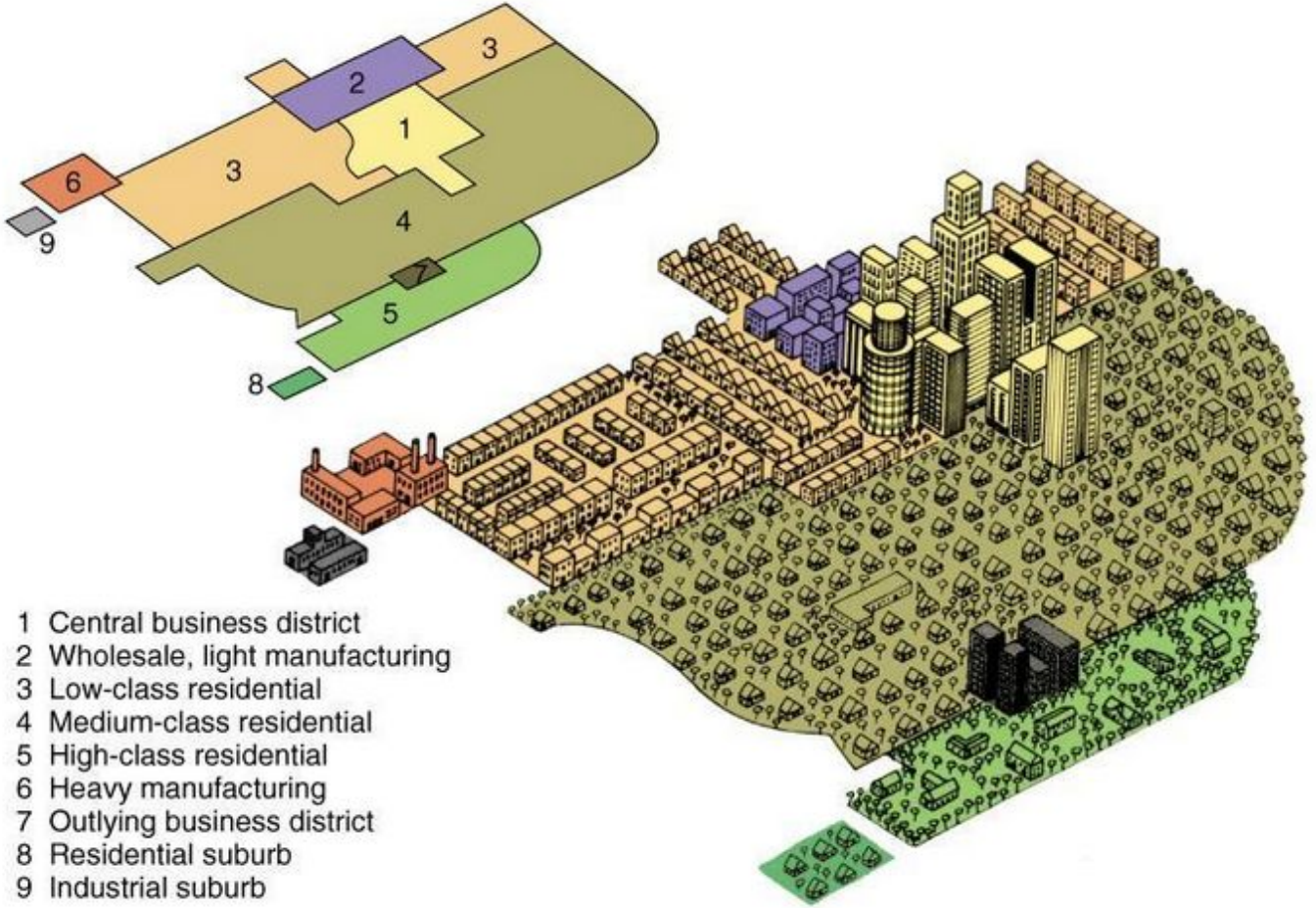
When businesses locate close together to take advantage of supply networks and infracture to lower their transportation costs.

Ex. Industrial parks, Airport warehouses



Zone 2: contains industry & poorer quality housing
Zone 3: contains modest older houses occupied by working class
Zone 4: contains newer & more spacious houses for middle class
Zone 5: beyond the continuous built up area.

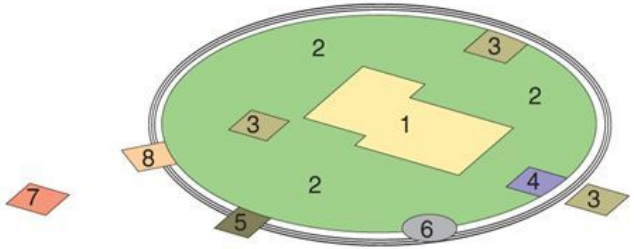

F
C
D
B
C
A
E
B
D
F
C
A CBD (Central Business District)
B Zone of Transition
C Residential (lower class)
D Residential (middle class)
E Residential (upper class)
F Industry



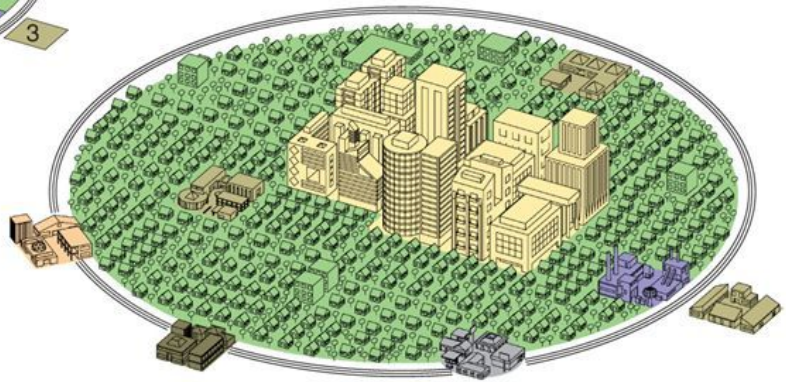
1 Central business district
2 Wholesale, light manufacturing
3 Low-class residential
4 Medium-class residential
5 High-class residential
6 Heavy manufacturing
7 Outlying business district
8 Residential suburb
9 Industrial suburb

Peripheral model (Harris)

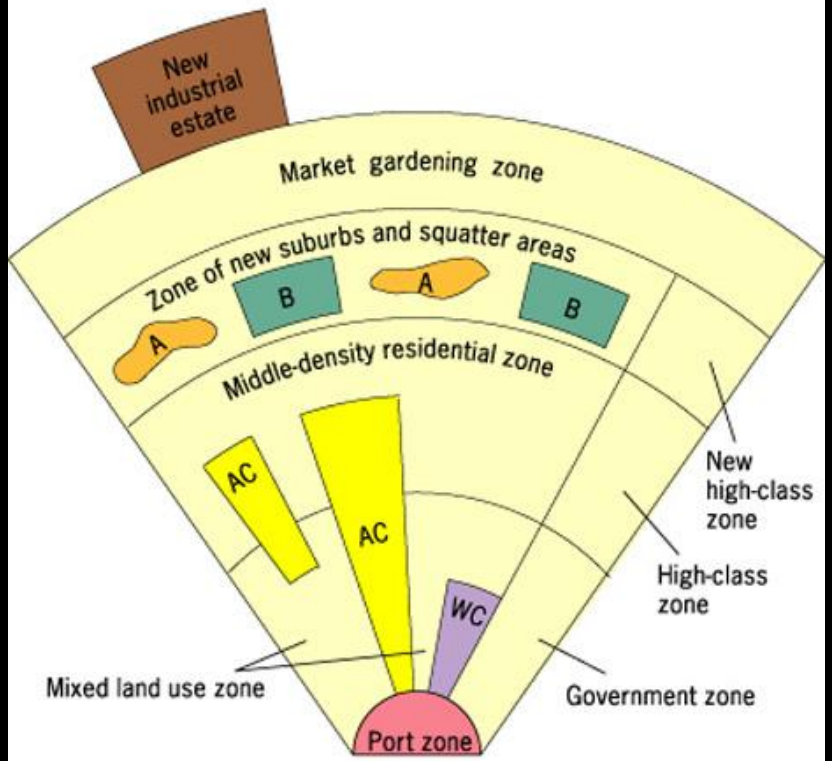
- N.A. cities have sprawled out due to our desire for homeownership, safe neighborhoods & good schools. Nodes/edge cities emerge in the beltway.



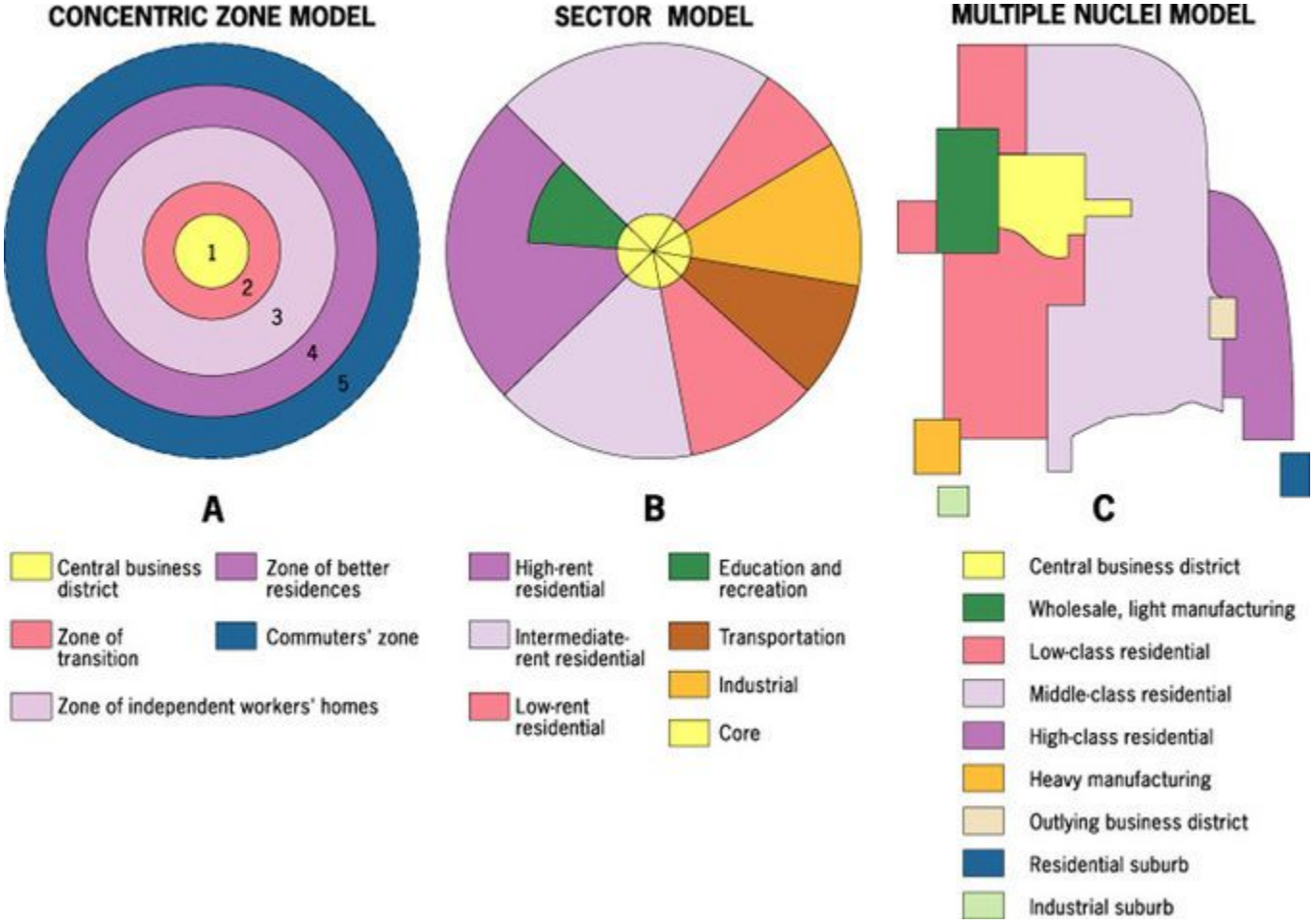
1. Central City
2. Suburban Residential Area
3. Shopping Mall
4. Industrial District
5. Office Park
6. Service Center
7. Airport Complex
8. Combined Employment & Shopping Center



A GENERALIZED MODEL OF LAND USE AREAS IN THE LARGE SOUTHEAST ASIAN CITY



A	Squatter areas	AC	Alien commercial zone
B	Suburbs	WC	Western commercial zone


CONCENTRIC ZONE MODEL
1
2
3
4
5
A
Central business district
Zone of better residences
Zone of transition
Commuters' zone
Zone of independent workers' homes
SECTOR MODEL
B
High-rent residential
Education and recreation
Intermediate-rent residential
Transportation
Industrial
Low-rent residential
Core
MULTIPLE NUCLEI MODEL
C
Central business district
Wholesale, light manufacturing
Low-class residential
Middle-class residential
High-class residential
Heavy manufacturing
Outlying business district
Residential suburb
Industrial suburb

Zoning - practice

Roseville

1. Where is the mall?
2. What is one “institutional” property in Roseville - find it on the map
3. Which part of the city (East/West) has the most residential housing?

Fridley

1. What kind of housing is located closest to the industrial areas (pattern)
2. What are the main commuter roads?
3. How does Rice Creek divide the city?

Both

1. Which city has more of a grid system?

Reading - PA

1. What color is the CBD?
2. What kind of housing is R-1?
3. What form(s) of transportation were the most important in the development of this city?
4. Do the rich people live East or West of the river?
5. Which model is this most like?

Rank size rule

Theory: The largest city in a county/state is in the 1st rank. The next largest city has ½ the population of the first city. It is in the 2nd rank.

Importance: Cities of the first rank, also called **Primate Cities**, have more cultural, poltical and social power than cities of the second rank. Many primate cities are also world cities.

First rank - Minneapolis: 400,079

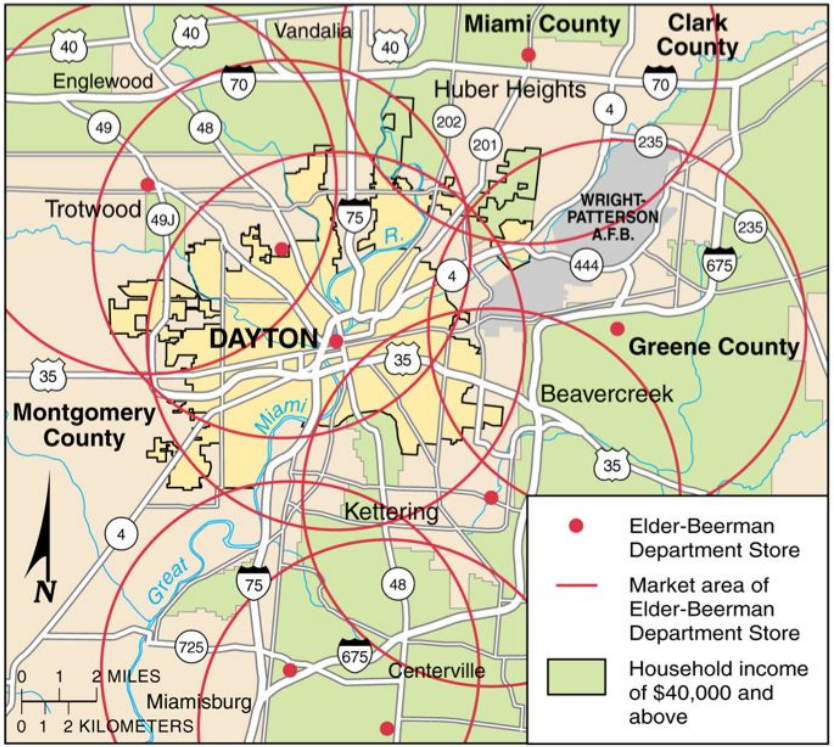
Second rank - St. Paul: 294,873

Central Place Theory

Theory - People will buy goods from the closest place. This explains why people live in cities because they want to be close to the place where they can buy the things they want.

HOWEVER - today, with the internet, people can buy things and have them delivered even when they are not close - this means distance is not as much of an issue as it used to be.

Hint: Think about our maps of functional regions in unit 1



Central Place Theory - Range and Threshold

Definition: Range - The maximum distance a person will travel to purchase something.

Examples:
Small range - gas station, grocery stores
Large range - Broadway shows, Lexus dealerships

Definition: Threshold - The minimum number of people to support a service.

Example: Target probably will not open store in a city that has less than 5,000 people. There just aren't enough customers to make a profit.