Bell Activity Page 69

- What are the main factors that effect the growth of a population?

Objectives: I will be able to…

- Identify causes and effects of rapid population growth.
- Recognize ways to measure population, including birth rate and death rate.
- Explore population growth through a web quest activity.
- Analyze population growth's effects on natural resources.

Population Dynamics

Populations

- Population: A group of organisms of the same species living in the same place at the same time.
- Population Size: The number of individuals
- Population Density: The number of individuals in a certain space.

POPULATION GROWTH

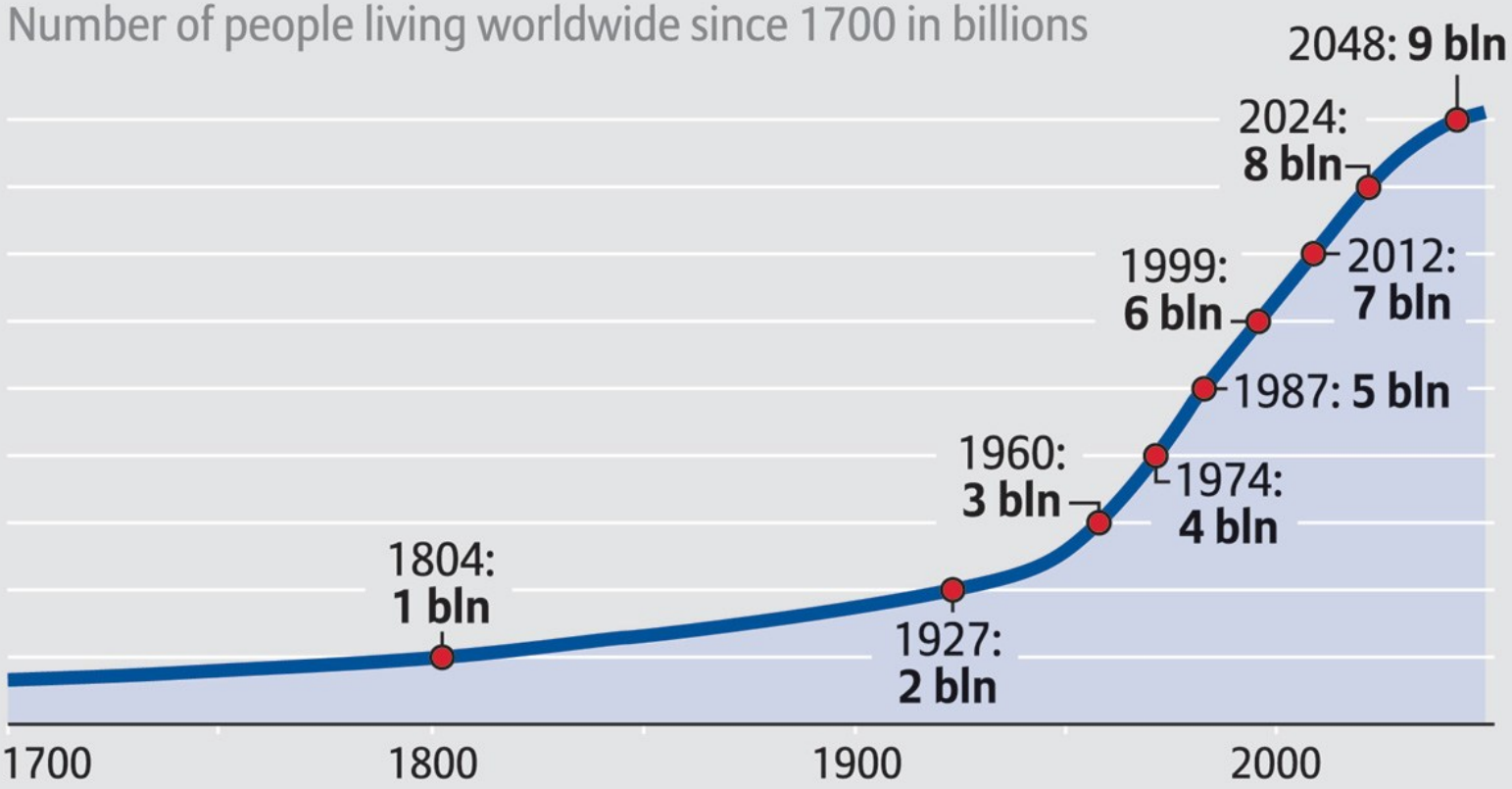
- Population controlled by…
  - Births
  - Deaths
  - Immigration
  - Emigration
- Formula:

Population Δ = (Births + Immigration) – (Deaths + Emigration)

POPULATION OF THE EARTH

Allianz

Number of people living worldwide since 1700 in billions



Source: United Nations World Population Prospects, Deutsche Stiftung Weltbevölkerung

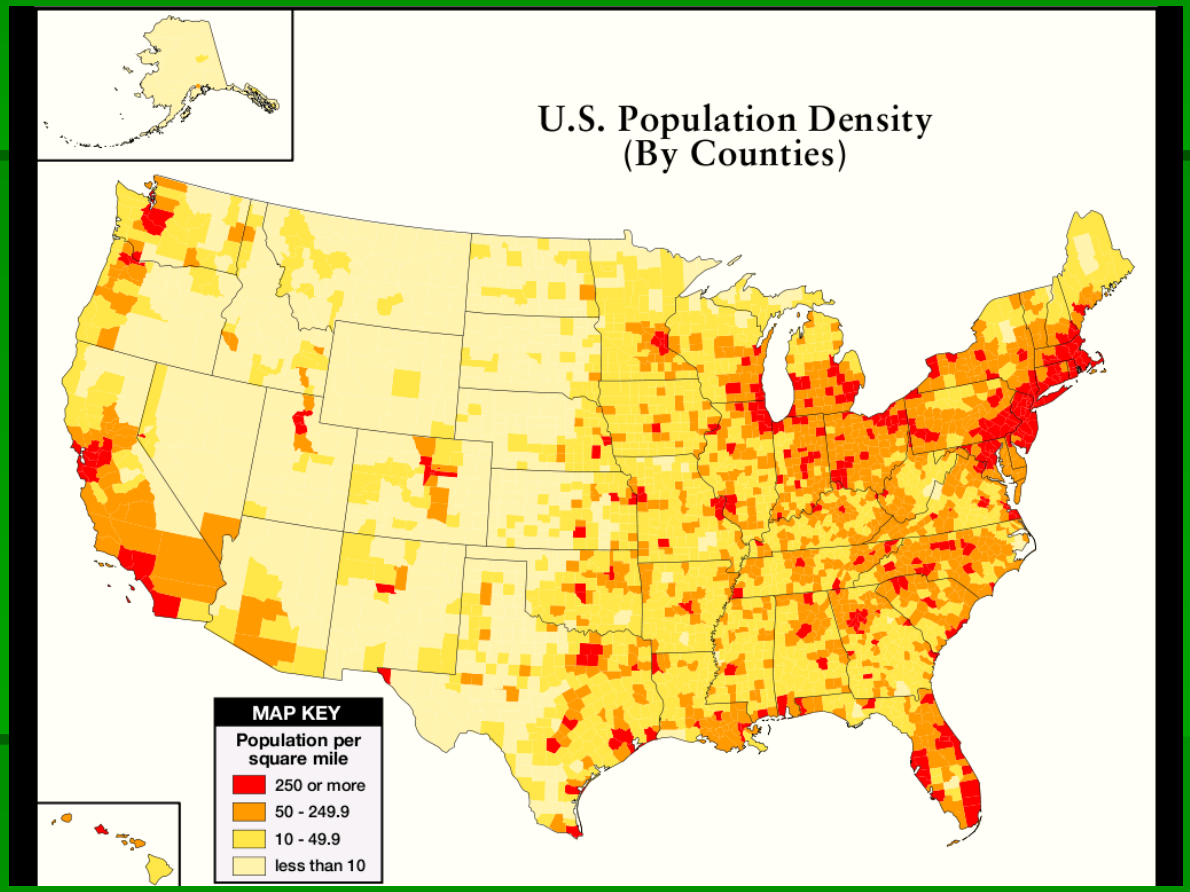
For further information please visit: www.knowledge.allianz.com

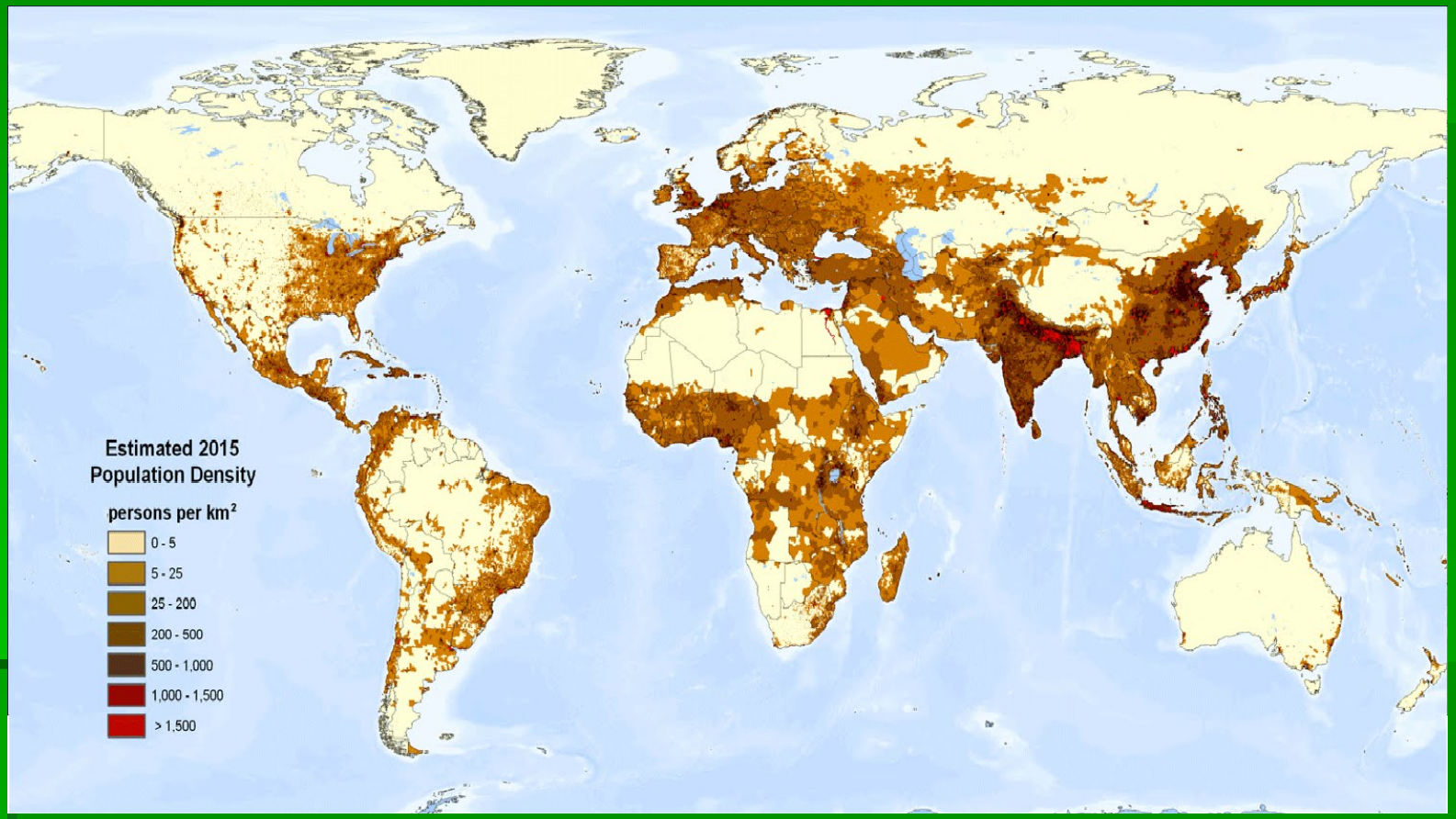
Change in Population Example

- Starting population = 5,000
  - Births = 500
  - Deaths = 200
  - Immigration = 50
  - Emigration = 25
- What is the ending population?

Population Density

- The number of people per unit of land area.
  - expressed as the number of people per square mile.
  - Describes how thickly settled an area is to compare different sizes and populations.


U.S. Population Density
(By Counties)
MAP KEY
Population per square mile
250 or more
50 - 249.9
10 - 49.9
less than 10


Estimated 2015
Population Density
persons per km²
0 - 5
5 - 25
25 - 200
200 - 500
500 - 1,000
1,000 - 1,500
> 1,500

Population Distribution

- Spreading of people over an area of land.
  - World population is spread unevenly.
    - i.e. Mumbai, India has the highest population density of any area in the world, 30,000 people per square kilometer.

Population Distribution

Where do we live?
Where don't we live?

The population of the United States is not distributed evenly. Instead, we tend to bunch up in communities, leaving the spaces in between more sparsely inhabited. Most Americans live in or near cities; today 53 percent live in the 20 largest cities. 75 percent of all Americans live in metropolitan areas.

This map shows population density. The relative height of each major city reflects its population in 1990.

Source: U.S. Census Bureau

Go West. Nevada is the fastest growing state, followed by Arizona, Idaho, Colorado, and Utah.

Wyoming has the lowest population density of all states in the lower 48 with an average of five people per square mile.

What happens in the empty spaces? Some of it is farming country. More than one quarter of America's crop land is used to grow corn. One third of what is produced is exported to other countries.

Chicago, the country's third largest city, has a population of about three million people. There are 21 states with populations smaller than this city.

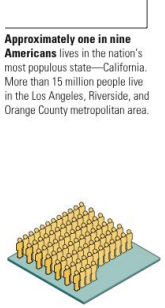
Largest metropolitan area includes New York City and portions of New Jersey and Long Island with a total population of 20 million.

Population density is highest in New York City, where there are 23,000 people per square mile.

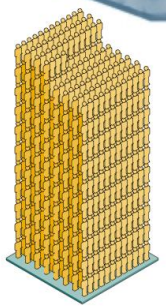
Approximately one in nine Americans lives in the nation's most populous state—California. More than 15 million people live in the Los Angeles, Riverside, and Orange County metropolitan area.

Wet. Some states are full of water. For example, Louisiana includes more than 8,000 square miles of lakes and wetlands. That's an area bigger than Connecticut and Rhode Island combined.

Coastal areas are home to more than half the U.S. population.



Distributing our population evenly would put an average of 76 people per square mile.



New Jersey is the most densely populated state with an average of more than 1,000 people per square mile.

Alaska is a sparsely populated state with an average of one person per square mile.

- What effects does a high population density have on a city?