

# The Concepts of Distribution and Density in Geography

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## Summary

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The note discusses the concepts of distribution and density in geography. It explains that distribution refers to the way people are spread out across the surface, often shown through a dot map, while density refers to the number of people living in a certain area, usually shown through a choropleth map. The note also highlights the factors that affect distribution and density, including physical factors like relief and climate, and human factors like social and economic factors. Additionally, the note introduces the demographic transition model, which explains population growth patterns in different stages, with factors like birth rates, death rates, and societal changes playing a role.

15/09/2023 10:30

## Distribution

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... describes the way in which people are spread out across the surface. Distribution is uneven and changes over time. Usually shown by means of a dot map.

## Density

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... describes the number of people living in a certain area. Usually a square kilometer (1 km<sup>2</sup>). Usually calculated by dividing the total Population by its area. Normally it is shown by a choropleth map.

- + Easy to read, generalisations
- Hides population concentrations

Distribution and density are affected by

### physical factors

- relief
- large bodies of water / water supplies
- natural resources
- climate
- vegetation
- soil

### human factors

- social
- economic
- political

# Population growth

Population change depends on

- the balance between the birthrate and the death rate
- [migration]

## Birthrate

... is the average number of live births in a year for every 1000 people in the total population.

⇒ natural increase or natural decrease!

Throughout history there is a steady world population increase with some years or centuries of exceptions.

# Demographic transition model

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## Stage 1

### High Birthrate

- no birth control for family planning
- many children needed to
  - work on the land
  - care for the parents
- high child mortality rate
- children are regarded as sign of virility<sup>[1]</sup>
- religious beliefs

### High death rates

- limited healthcare infrastructure
- diseases & plagues
- poor hygiene (no piped, clean water; no sewage)
- famine, uncertain food supply, poor diet
- (wars)

## Stage 2

Birthrates remain high, death rates drop rapidly ⇒ rapid population growth

# Dropping death rates

- improved medical care (vaccinations, scientific inventions, ...)
- improved sanitation and water supply
- improved food production / supply (quality & quantity)
- improved transportation
- decrease in child mortality

## Stage 3

birthrates fall rapidly

death rates continue to fall slightly

⇒ slowly increasing population

## Falling birth rates

- family planning (contraceptives<sup>[2]</sup>, sterilisation, abortion, government incentives<sup>[3]</sup>)
- lower infant mortality rate ⇒ less need to have many children
- increased industrialisation and mechanisation ⇒ fewer laborers needed
- increased desire for material possession and less for large families
- emancipation of women (their own careers)

## Stage 4

birthrates and death rates remain low, fluctuating slightly

⇒ quite steady population

## Criticism about this model

- situation is simplified
- assumption: population change results mainly from an increase in industrialisation

[0] virgility ... Potenz, Männlichkeit

[1] contraceptives ... Verhütungsmittel

[2] government incentives ... staatliche Anreize

