Map Types

Locator
Reference
Thematic
Locator Map

Shows the location of something
Reference Maps

- Special Purpose (not as important)
Reference Maps

- Political-shows countries, counties, boundaries, etc.

- Physical Maps-shows mountains, rivers, plains, etc.

- Road Maps-shows interstates, roads, etc.
Thematic Maps

Graduated or Proportional Symbol
Dot Distribution
Choropleth
Isoline
Cartogram
STATE PLATE
VANITIZATION RATE
Graduated Symbol or Proportional Symbol
Graduated symbol
Graduated or Proportional Symbol Map

- A thematic map in which the size of the symbol varies in proportion to the frequency or intensity of the mapped variable.

- What could be strengths of this type of map?
- What could be weaknesses of this type of map?
Pros

• Very easy to read and understand
• Flexible because you can use all different types of data

Cons

• Congestion/overlap (can’t see what’s below the symbol)
• Map readers generally don’t estimate the areas of symbols very well
Dot distribution

License Plate Vanitization Rate, 2007

Each Dot = 0.08280384615385 Units
Sum of dots = 2600
Dot Distribution – “Political Donations in Greenwich Village, New York, NY”
Dot Map

*A thematic in which a dot is used to represent some frequency of the mapped variable.

*What could be strengths of this type of map?

*What could be weaknesses of this type of map?
Pros

• Shows actual, precise locations of phenomena
• The “dot” can be a symbol or shape making it easier to see

Cons

• Anything less than the minimum “dot” amount will not be shown on the map
• Can be difficult to read, have to count up the dots
Choropleth

License Plate Vanitization Rate, 2007

- 0.56 - 2.4235463561945
- 2.4235463561945 - 6.0191987418447
- 6.0191987418447 - 9.6148511274948
- 9.6148511274948 - 13.210503513145
- 13.210503513145 - 16.19
Choropleth Maps

- A thematic map in which areas are shaded or patterned in proportion to the measurement of the statistical variable being displayed on the map, such as population density or per-capita income.

- What could be strengths of this type of map?

- What could be the weaknesses of this type of map?
Pros

• Easy to read
• Easy to make

Cons

• Dangerous because of induction, classification, etc.
Isoline
Isoline

Figure 5.5 The unevenness of time-space convergence

*Source:* Based on Dicken and Lloyd (1981, Figure 2.7)
Isoline maps

- A Thematic map with lines that connect points of equal value
- What could be strengths of this type of map?
- What could be the weaknesses of this type of map?
Pros

• Where lines are close together, shows zone of rapidly changing value

Cons

• Not as common in human geography because of what we show
Cartogram
Cartogram

- A Thematic map in which some thematic mapping variable is substituted for land area (e.g., GDP)
- What could be strengths of this type of map?
- What could be the weaknesses of this type of map?
Pros

- Visually impactful

Cons

- True size and direction is distortion
Are maps FACT or OPINION?
Simplification
Simplification
Symbolization
Symbolization
Symbolization
Symbolization
Classification

US POPULATION - 2000 (10 classes)

Legend of Layer #1

- 493782 - 783600
- 783600 - 1274923
- 1274923 - 1998257
- 1998257 - 2926324
- 2926324 - 4041769
- 4041769 - 5130632
- 5130632 - 6894121
- 6894121 - 8186453
- 8186453 - 12419293
- 12419293 - 33871648
Classification
Classification

US POPULATION - 2000 (5 classes, equal interval)
Induction—more info is given than from the original data.
Centering
Centering

Spain: Science Business Class
Spain ranks 9th in world scientific output. Between 2003 and 2007, the government budget allocated to R&D grew at the second highest rate. Spain: a country of cultural and scientific talent.
Where the big bird will fly
Busiest airports for large aircraft* by 2025

Source: Airbus

*Ranked by number of large-aircraft operations
Terrorist Installations in Azerbaijan

- Camp of Chechen fighters in Pankisi Gorge
- Terrorist training center in Akhmeta
- Terrorist training center in Kazax
- Terrorist training center in Seifulli
- Hungarian training center in Belokany
- Terrorist training camps in Zakataly, Belokany, and Sheki
- Terrorist training center in Goris
- Weapons delivery to Chechnya by sea
- Camp of Afghan mercenaries at Dyclesin (Hezb-e-Islami group, under Gulbuddin Hekmatyar)
- Weapons delivery to Azerbaijan from Chechnya

- Central office of "Muslim Brotherhood"
- Narcotics from Central Asia and Afghanistan
- "Grey Wolves" neo-fascists' training camp in Guzdek
- "Grey Wolves" neo-fascists' training camp in Shikho
- Camp of Afghan mujahedin mercenaries on Nagorno Karabakh from 1992-1994
- Terrorist pilot training school at Nasosny

- "Jeishullah" Terrorist Base

Osama bin Laden, the world's No.1 terrorist, was hired by Azerbaijan to fight against Armenians in Nagorno Karabakh (1992-1994). In 1988, Al-Qayeda terrorists coordinated the American Embassy bombings in Tanzania and Kenya from Baku, Azerbaijan.