Mapmaking

GIS II: Data Management

Overview

• Consistent labeling improves map readability
• Proportional symbols are a useful tool for showing raw counts on maps
• Use inset maps to show small areas where data might otherwise be lost

Labeling: General guidelines

• Label unambiguously
  • Location
  • Style
• Never let labels overlap
• Labeling is an iterative process, and can be very time-consuming
Label locations: points

- If there are no other constraints, place labels for point features above and to the right of the point symbol.

- Avoid placing labels where they may be associated with more than one point.

- Split long names onto two lines.

Label locations: points

- For features that border water, place labels in the water. For features that don’t border water, place labels in land.

- For features that cross lines, place labels across the lines. For features that don’t cross lines, keep the labels on one side of the line.

Label locations: points

- When placing competing labels, use the following guide to preferred label placement.

- Of course, other constraints may prevent you from placing labels in the most preferred location.
Label locations: lines

- Label line features above the line
- Never place label text upside-down (or past the vertical)
- For long lines, place multiple labels; don’t spread text out

Label locations: polygons

- Spread text out to cover the whole polygon
- Avoid placing labels outside the polygon; rotate text if you must
- If a polygon is too small to fit a label inside, place the label as if it were a point feature

Label fonts

- Use sans-serif fonts for cultural features (cities, counties, hospitals); use serif fonts for geographic features (rivers, mountains, oceans)
- Never use more than three fonts on a map
- Vary font sizes by at least two points for different categories
- Try to avoid using fonts smaller than 6 points
Proportional Symbol Maps

• Choropleth maps are good for showing rates, but bad for showing raw totals

• Proportional symbol maps are good for showing raw totals

Proportional Symbol Maps

• How to make one in ArcMap

Inset maps

• Show geographic context missing from the main map (locator maps)

• Show larger-scale maps of locations that need more detail
Inset maps

• How to make one in ArcMap

Multiple Layers

• General guidelines:
  • Point symbols on top of lines; lines on top of polygons
  • Physical features on top of political boundaries

• Multiple variables:
  • Bivariate choropleth maps
  • Proportional symbols on top of choropleth maps
  • Change maps