Mapmaking

GIS II: Data Management

CEHI

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

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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

Capital City

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

Springfield

Capital City

Capital City

Springfield

- Split long names onto two lines

North Haverbrook

Label locations: points

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

Port Asbestos

Shelbyville

- 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.

Capital City

Ogdenville

Label locations: points

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

2 7 1
6 ● 5
4 8 3

- 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**

G I A N T

V E R T I C A L

MINIATURE

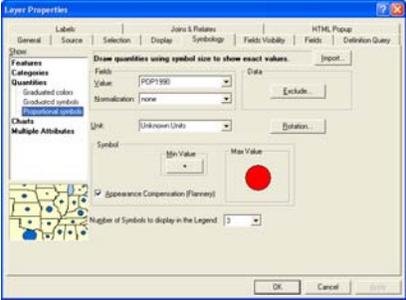PLEASANT LAKE

TINY POND

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**

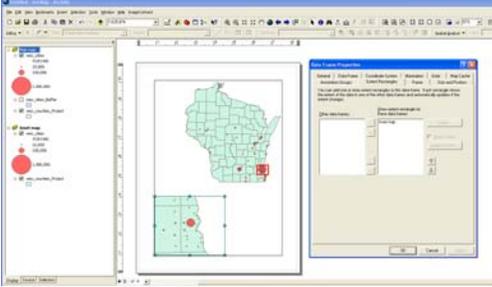## Proportional Symbol Maps

- **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**