Learning Objectives

- Identify map design fundamentals
- Explore GIS as a communication tool
- Discuss examples of map design and explore choices based on specific products
Map objectives: most analysis ends with the communication of results. Design objectives can be considered a means to the end: make the graphic and text elements of your map work for you; helping the map reader make proper use of your map = meet your map objectives.
Key factors that guide your design objectives:
- What is the map objective?
- Who is the audience?
- How will the map be used?

Other important factors to consider:
- Balance between generalization and reality
- Scale and level of detail
- Technical limits - printing and plotting hardware limits (i.e., @ 1:1,000,000 scale a 10 meter road should appear as a line on a map 0.01 mm long; smallest line possible rendered by inkjet technology is 0.1 mm; color printing issues)
This is a chloropleth map that uses shades of blue to indicate arthritis prevalence. The author used color and shape on the point symbols for the different types of workshops to help the audience easily distinguish between them.
This map uses satellite imagery to help the audience identify place. The point symbology utilizes yellow proportional dots to symbolize the magnitude of smoking violations (quantitative data), and red circles that use the standard convention for 'no' to denote the “No Smoking” sign locations (qualitative data).
This map symbolizes qualitative data with an appropriate color scheme. The colors are not related to each other but they are of a consistent color value (i.e. not mixing pastels and brights) so that they form a pleasing color palette.
These maps use design to tell the audience that they are looking at the same geographic area but with different health outcomes. There are areas of interest that are consistent between the maps and these are highlighted in the same color between the maps so that it is apparent to the audience that the reference is to the same geographic locations.
This map uses the map design principle of ‘small multiples’ in order to visualize changing rates in the same geographic place but across different time spans.
This map is another example of a good use of color and shape to let the audience easily distinguish between different types of point data.
The good cartographer is both a scientist and an artist. (S)He must have a thorough knowledge of (her) his subject and model, the Earth…. (S)He must have the ability to generalize intelligently and to make a right selection of the features to show. These are represented by means of lines or colors; and the effective use of lines or colors requires more than knowledge of the subject – it requires artistic judgment.” Erwin Josephus Raisz – author of the first cartography textbook in English: General Cartography (1938).
This is an example of a map review request.