

GEO202: GIS I

Making figures and tables for lab reports

All lab reports should be typed and printed on 8.5" by 11" stock. Before drafting each report, set all page margins to be 1", except for the *right* margin, which should be set to 2". I will use the right margin to make comments while assessing your work. Set the normal font face to be Bookman Antiqua, Bookman Old Style, or Georgia; and set the normal font size to be 12 points. Major section headings should be in **bold face**.

All tables and figures should be inserted into the body of your report and must conform to the formatting and margin requirements listed above. Unless directed by me, any table or figure simply stapled to the back of a report will not be accepted.

Figures

Figures contain information in graphic or image form (e.g., a map, picture, diagram, scan, etc). Figures are identified by numbers (assigned in sequential order) and described by captions that provide the reader with a succinct summary; figure captions are placed below the figure to which they refer (see Figure 1). No figure should stand alone; readers must always be referred to a figure in the body of the text.

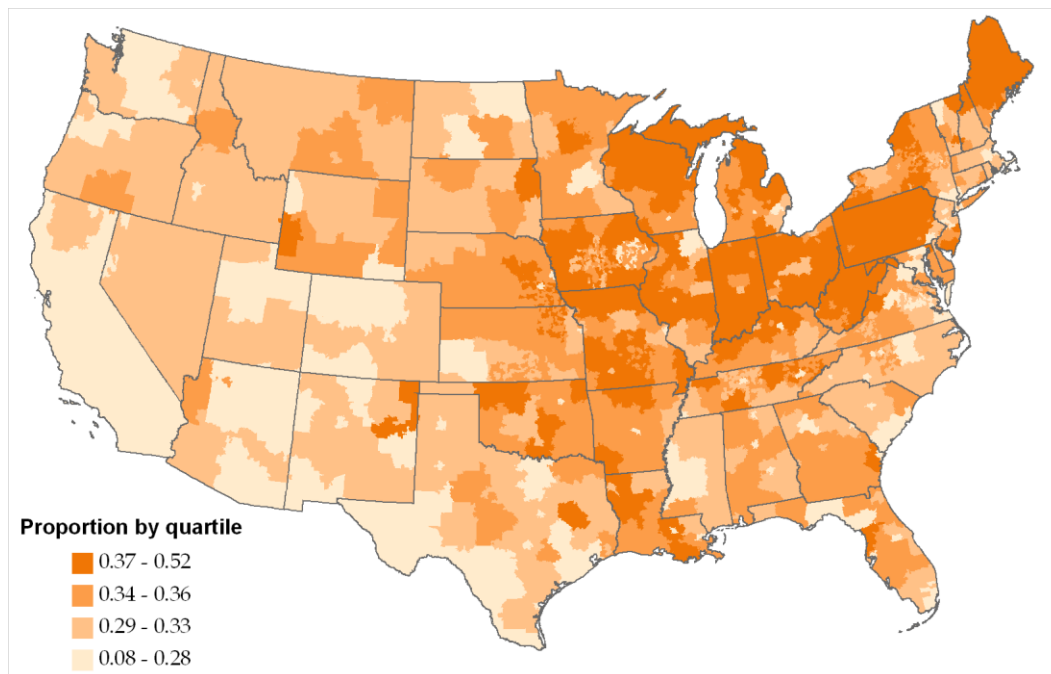


Figure 1: Proportion of women in the United States that earned a high-school diploma, by zip code (US Census Bureau, 2000).

GEO202: GIS I

Mapping your results

You will inevitably want to include maps that you've built using ArcGIS into your reports. Maps that fit nicely (and don't look like a copy-n-paste job) will add a professional quality to any report.

Making maps for reports requires you to layout map elements a bit differently than you would for stand-alone maps. For example, there's usually no need for a map title because that information can be placed in the figure caption, which is placed below the figure it describes (see Figure 2). Also, there's no need to use wide margins as you layout your map elements because your report margins (left and right) and line spacing (top and bottom) will serve that purpose. Notice how the excess margins in Figure 2, when combined with the page margins, make the map look much smaller than it needs to be. Compare Figures 2 and 3: map the same datasets, but Figure 3 employs better design.

Long story short, you should want to highlight your data and results as much as possible. DO NOT make default maps and cram them (i.e., resizing them) into small spaces.

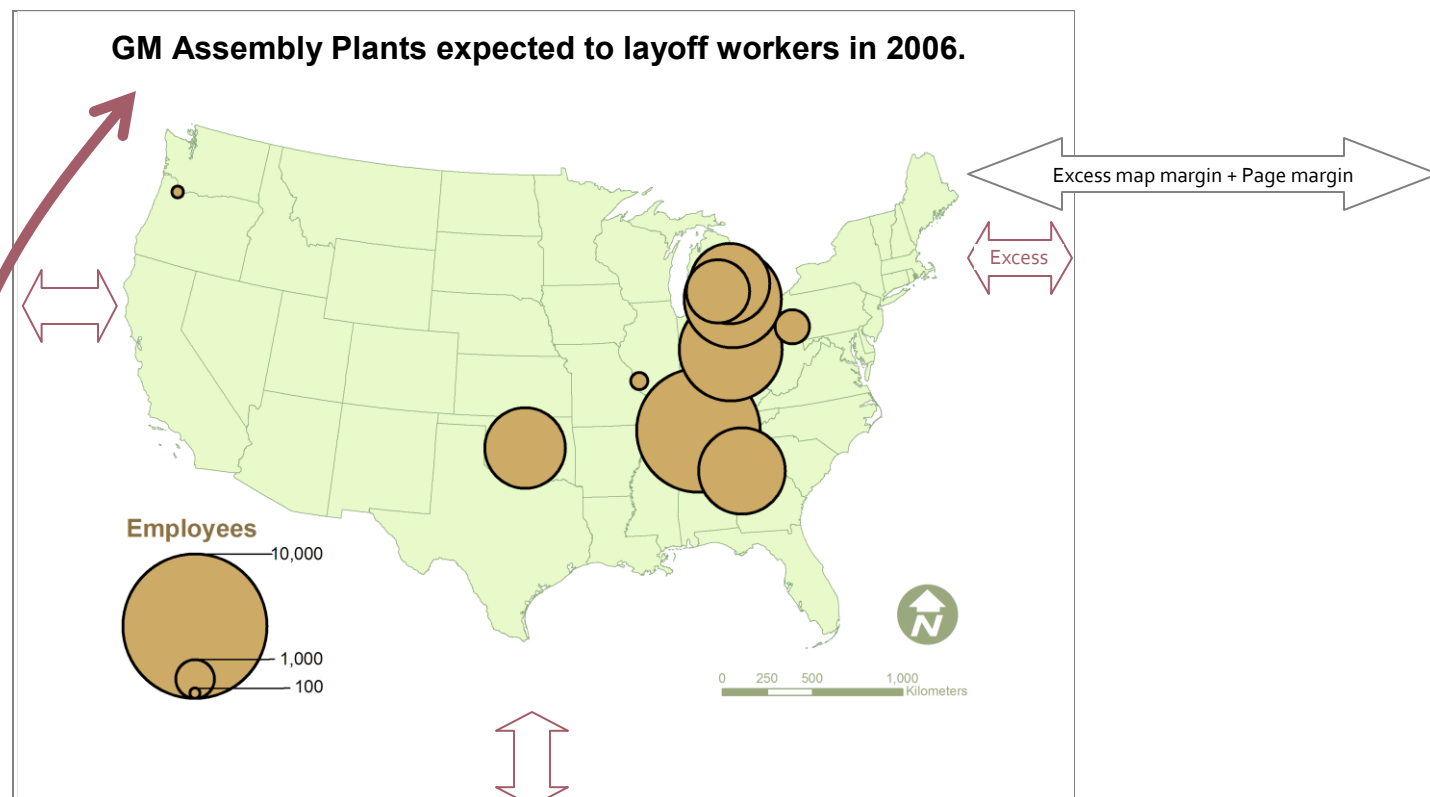


Figure 2. GM Assembly Plants expected to layoff workers (GM, 2006).

GEO202: GIS I

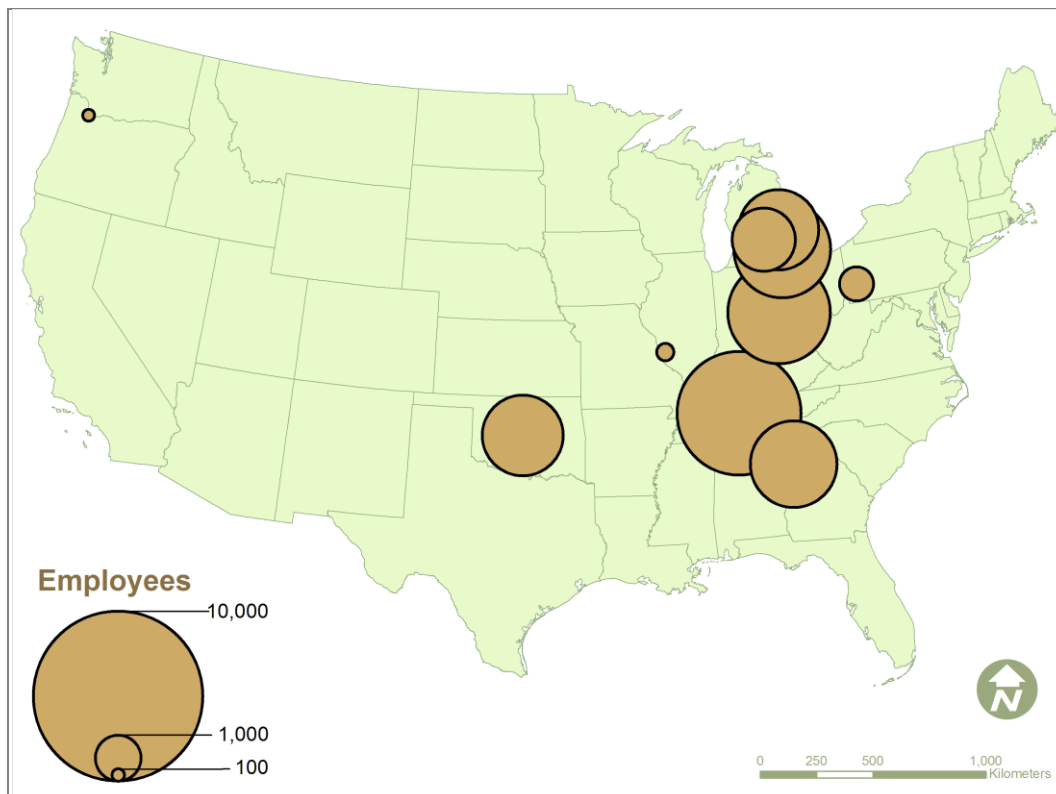


Figure 3. GM Assembly Plants expected to layoff workers (GM, 2006).

A letter-size piece of paper is 8.5 x 11 inches. Not coincidentally, that's the default map size that ArcMap will assume you want to make. To fit a map into your report, however, you need to change the default map size by 1 inch to accommodate the top, left and bottom document margins and by another 2 inches to accommodate the *right* document margin. That leaves 5.5 inches of width and 9 inches of height. You actually have less than 9 inches of map "height" to work with, however, because you need to allow space for the figure caption.

In ArcMap, find and change the **File > Page and Print Setup...** properties. Define a map size that is 5.5 inches wide -- big enough to consume the space between the left and right document margins. Your map height can be anything between 1 and 8 inches depending on your mapping needs (e.g., a figure showing Tennessee should be sized and laid out differently than a figure showing Georgia). When your layout works, use the **File > Export Map...** menu option to create a digital image of your work. The export option lets you choose from many image types. I recommend using the TIF image format (use a print resolution not less than 300 dpi and LZW compression to keep the file size manageable). Finally, insert your image as a picture into your report.

GEO202: GIS I

Tables

Tables contain data or results that are organized or ordered in a way that allows the reader to easily recognize extreme values (highs or lows), parts of a sum (see Table 1), or to make comparisons. All tables should be identified by numbers (assigned in sequential order) and have captions that provide the reader with a succinct description of table contents; table captions are placed *above* the table to which it refers (for example, see Table 1). No table should stand alone; readers must always be referred to a table in the body of the text.

Table 1: Campsites at Big Stone State Park.

Attribute	Value
Campsites	
Occupied	76
Vacant	<u>22</u>
Total	98

NOTE: Figure and tables should be numbered independently.