CSC 465

Homework 3

Submit a PDF file with your answers.

Clearly label which answer and visualization goes with which question. If it is not easy to find your answers, you may lose credit.

Include text answering questions and images of your visualizations (from screenshots or copying and pasting right from Tableau or RStudio into your document). Explain very briefly how you created the visualization and include R code files in your Dropbox submission.

All visualizations must conform to the design criteria covered in class. The techniques should be appropriate for the data and the graphs should be clear and uncluttered.

1) This is an individual milestone for the project. Use your group project data, but submit unique visualizations you have made yourself.

   Create two visualizations with your group data. Each one should use a technique from one of the more recent lectures (5-8). The two visualizations can use the same technique if they cover different aspects of the data or use the technique in different ways.

   Each group member's visualizations must be distinct. The group's visualizations can use the same technique if they cover different aspects of the data or use the technique in different ways.

   Examples of techniques you could use include choropleth maps, glyph maps, geographic or other heat maps and tile plots, cartograms, contour plots, and hexplots.

2) Download the FoodSrvcByCounty.txt file and create the following visualizations for this geographical data. The data is for the availability of food services by county in the U.S. It also has data by state (in the county field, some of them have the state names, and those rows hold the state totals, or you can aggregate by state)

   a. Graph food services by state as a choropleth. Note any patterns that arise. Your visualization should clearly display states that have high levels or low levels of food service availability, so think carefully about the color scheme.
   b. Graph food services by county as a choropleth. Again, think carefully about the color scheme.
   c. **(Extra credit)** Research how to do a diffusion or tile cartogram in R or D3 and create a cartogram of the state data from this dataset.