GEOGRAPHY 503: Fundamentals of Geoenvironmental Research
Presentation of Data in Tables and Graphs Assignment – 25 points – due Nov. 7

Background
Effective use of tables and graphs is essential to good professional communication—especially in the sciences. This assignment will build your experience using Microsoft Word and Excel to prepare appropriate presentations of data. You will use example data sets typical to research in geography and earth science.

Key elements of this assignment
1. You will hand in one table and two graphs.

   Your table must include a table number, title, column headings, rows / columns of data, table notes, and citation of sources. The information displayed should be independent such that it can be easily understood without reference to any other text.

   Your figures must be of two different types (e.g. a line chart and a pie chart). Figures must include a figure number, title, axis labels, and citation of sources. If appropriate, include a legend and/or other labels.

2. You must email me digital copies of your work as well as handing in paper copies. We will discuss some of the tables and graphs in a subsequent class.

3. You should spend considerable time exploring the data and trying various different styles of presenting data. Many of the most effective graphs are not out-of-the-box styles, but rather the innovation of a researcher to best fit a particular situation.

4. Make sure that each table and graph has a descriptive title.

See below for assignment details.
Assignment A
Table: Using the “Applegarth” data set, develop a table to communicate the percentages of sand, silt, and clay within the various soil horizons at the “crest”, “shoulder”, and “footslope” sites. Also include the horizon depth in your table.

Figure 1: Using the same data you used for your table, create a figure to display the same information. Spend some time thinking about how to most effectively communicate this type of data before developing your graph in Excel. You may need to include three graphs (one each for the crest, shoulder, and footslope sites) in your figure.

Figure 2: Using the “Hawkins” data set, create a figure to show 1895 – 2005 changes in (a) Cumberland and Franklin County population and (b) the percentage of agricultural land in those two counties.

Assignment B
Table: Using the “Applegarth” data set, develop a table to communicate the percentages of sand, silt, and clay within the various soil horizons at the “backslope”, “footslope”, and “toeslope” sites. Also include the horizon depth in your table.

Figure 1: Using the same data you used for your table, create a figure to display the same information. Spend some time thinking about how to most effectively communicate this type of data before developing your graph in Excel. You may need to include three graphs (one each for the backslope, footslope, and toeslope sites) in your figure.

Figure 2: Using the “Hawkins” data set, create a figure to show 1895 – 2005 changes in (a) average annual minimum temperature and (b) global temperature anomalies from the CRU (Climatic Research Unit, University of East Anglia).