Writing Assignment 2: What's wrong with this picture?   FYOS 1001: Data Science

Rationale. Data science – including the preparation of graphs and figures – inevitable involves *analyst choice*. One of our goals is to learn to *properly interpret quantitative information*. This includes discerning choice, prejudice and bias in the presentation of data. Understanding analyst choice is key to being an intelligent consumer of data science products.

Background. Not all choice is prejudicial and not all prejudicial choice is intended to mislead – but some of it is. In this class, we have discussed some principles of *fair graphical presentation*. Can you identify aspects of choice in a data graphic? Can you determine which choices were made to influence your interpretation. In this exercise we will practice the *critical reading of graphs*.

Learning objectives. Student will identify multiple aspects of choice that entered into the construction of a graphic. Student will recognize how aspects of choice lend themselves to different interpretations. Student will consider alternative choices that may have been made. Student will critique a graph with respect to principles of fairness.

Assignment. Choose a data-based graphic from the web, newspaper, or magazine. It is suggested that this graphic contain multiple elements that can be considered. Write a two page essay identifying and evaluating at least six aspects of choice and what the information presented means. What conclusion would the analyst like you to draw from this evidence? Consider what freedom the analyst had in representing the data and what constraints the data imposed on the analysis. How do the choices made by the analyst affect the interpretation of the presented information? It may be useful to consider what interpretations alternative presentations might have supported. Do you consider the graphic to be biased? What conclusions do you draw from this information?

Assessment. Essays will be evaluated according to the following writing rubric.

Due: October 10, 2016

	Excellent	Good	Competent	Ineffective
Identification of six aspects of analyst choice				
Analysis of how aspects of choice affect interpretations				
Mechanics of writing (use of paragraphs, clear thesis, logical argument, spelling/grammar), particularly in the development of a persuasive critique; following directions of the assignment				