Group 5 Data Visualization Assignment – Tommy Vo, Cait Smith, Duncan Walter, Jay Boyd

1. “Bar 10” is a better graph to visualize the percentage of victories for the Yankees and Red Sox than “Bar 9.” The broken scale in “Bar 9” creates an exaggerated sense of the relative difference between the data presented. “Bar 10” maintains appropriate scale by starting at 0 and demonstrates a fair comparison of the Yankees and Red Sox victories for the viewer.

1. The “Taxes at the Pump'' graph misleads viewers by representing the state taxes twice (in both “STATE” and “STATE & LOCAL” categories), making the overall total taxes paid appear greater than they are. The listed taxes are stacked on top of the “PER GAL. NAT’L. AVG.” which already includes those taxes. The taxes are literally presented as a cost *on top of* the per gallon national average ($3.83), implying that the total may be $4.54.

1. Both the title and the scale of the graph “Unemployment Level by Random Quarter” are misleading. Despite stating “random quarter” in the title, the dates are presented and labeled in sequence from June 2007 through June 2010, by month. The choice of highlighted data is clearly not random but is intended to emphasize a certain point of view. The unlabeled y-axis and x-axis are poor data presentation.

1. The more accurate graph depicting “Most Dangerous Cities” is on the right-hand-side (“Bar 8”) with the subtitle “Murder Rate in Major U.S. Cities in 2014, per 100,000 People.”  This graph is more accurate because it defines parameters (murders per population) and gives context (scale) to the number of murders shown. Failure to account for population misleads the viewer *and* provides uncontextualized data. A more appropriate label for the left-hand graph (“Bar 7”) would be “U.S. Cities with the Most Total Murders Per Year.”

1. The graph comparing the U.S. unemployment rate with Hillary Clinton’s approval rate from June 2014 to May 2015 implies, at a minimum, correlation. Based on the intertwined manner of presentation and the heavily manipulated y-axes, we believe the graph is actually intended to imply causation and disrupt nuance – essentially, Clinton’s approval rating was dependent on unemployment and vice versa. An informed reader knows this graph’s cause-and-effect narrative is not accurate.