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Information Visualization

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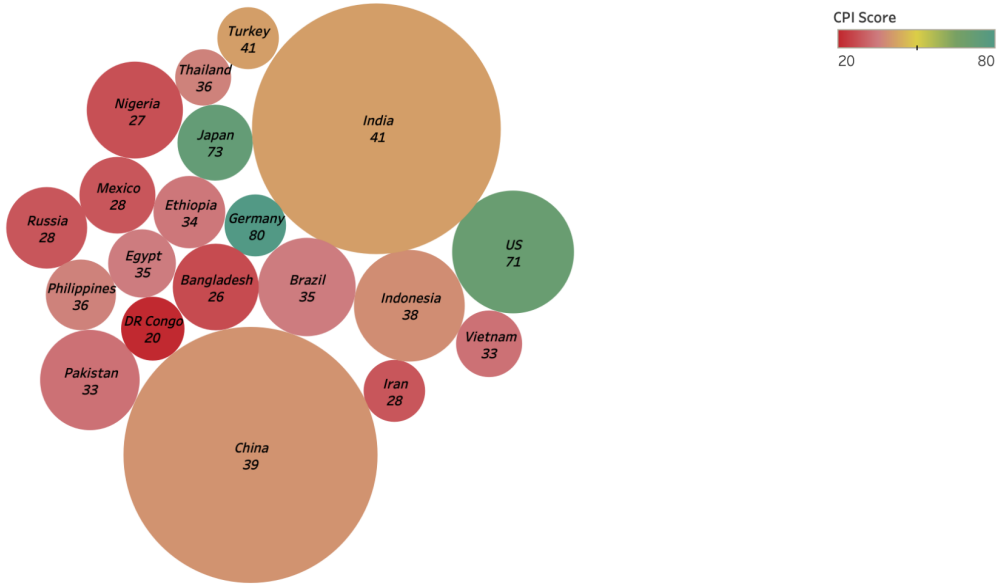
Homework 2

Figure 1: Corruption in the Twenty Most Populous Countries

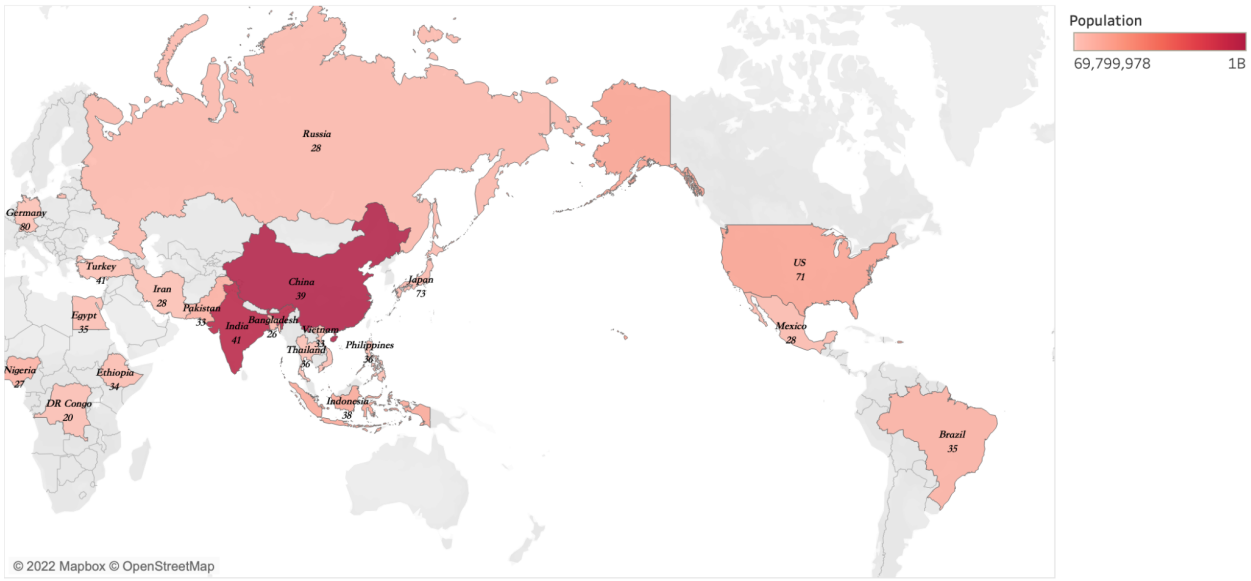


Source: *Transparency International* 2018 Corruption Perceptions Index and *Worldometer* Population Statistics

For my first visualization, I created this bubble chart to try to mimic a similar visualization that I saw in the past. I think this visualization turned out really well, for the color scheme and sizing are both fairly intuitive. I really believe that having less corrupt states represented with green and more corrupt states represented with red is a great way of mapping corruption scores to color. However, at first glance, it may be difficult for viewers of the visualization to understand the scale of the corruption perception scores (i.e. that higher scores mean less corruption and vice versa), and it also may be hard to immediately tell that the size of the bubbles represents population size. I think the color scheme helps to combat some of the scale confusion in regards to the CPI scores, for green countries can usually be interpreted as

"better" than red countries in regards to desired CPI scores. Along with this, the sizing may also help to combat some of the informational confusion, for China and India are, most often, immediately recognized as the most populous countries in the world. My visualization's size mapping conveys this quite well in my opinion. It is possible that some labeling of these aspects could be helpful, but I wanted to try and keep the figure free from unnecessary clutter.

Figure 2: Corruption in the Twenty Most Populous Countries

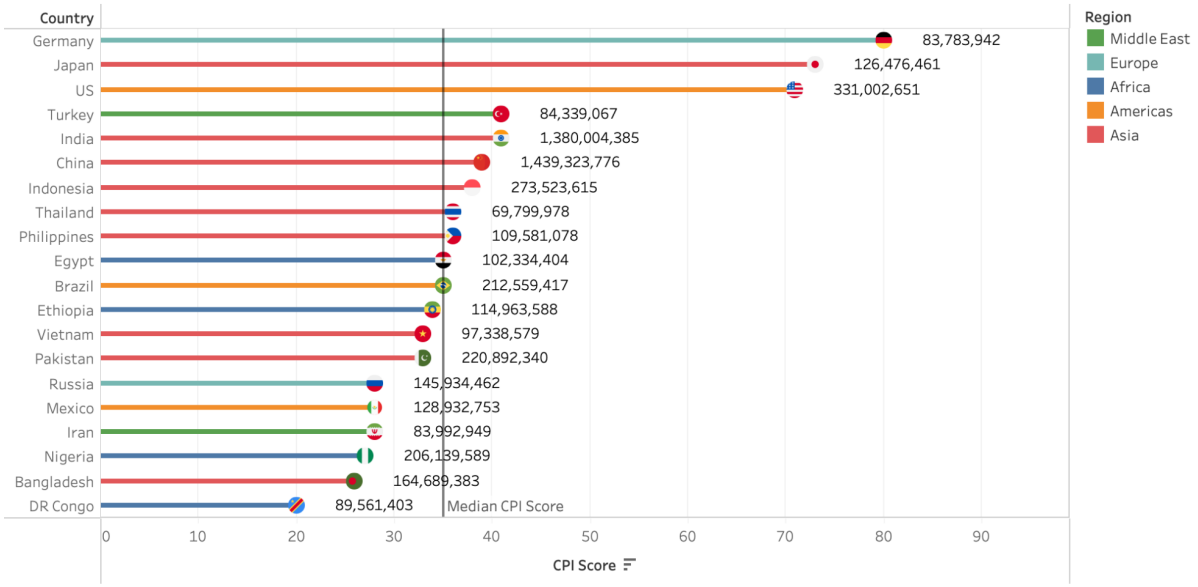


Source: *Transparency International* 2018 Corruption Perceptions Index and *Worldometer* Population Statistics

For my second visualization, I really wanted to use Tableau's map features, for I love visualizations that can be informative with the use of geography as well. I do not think this is an excellent visualization, for there are several aspects of it that may be difficult to comprehend. First, mapping population sizes to color is obviously questionable, for it is the first thing viewers will notice and they may initially mistake the color mapping for corruption scores. Also, the color scale for population size makes it hard to differentiate between countries' population sizes, for countries like Turkey and Ethiopia appear to be the same color but actually have about a 30 million person population difference. China, India, and the US do appear darker though, so there is some easy understanding for this color scale. Next,

the country and corruption score labels are small and possibly hard to read, so viewers may really have to zoom in on the visualization to begin to fully understand what is going on. I made this choice because countries' names and labels overlapped with overly big font sizes, so I merely tried to make all the labeling fit into the graph. Third, viewers may have a hard time understanding that the labels are corruption perception scores and also what those scores mean. Again, the issue of the CPI score scale comes into play. Overall, this map visualization could be a lot better, but I do still believe that it offers some interesting insights to corruption comparisons across the most populous countries and shows where exactly those countries are.

Figure 3: Corruption in the Twenty Most Populous Countries



Source: *Transparency International* 2018 Corruption Perceptions Index and *Worldometer* Population Statistics

For my last visualization, I wanted to make a bar chart with some fancier features. I believe that my use of color mapping for regions, flags for countries, and a median CPI score reference line makes this chart extremely informative. Japan, Russia, and Indonesia's flags get a little lost in the white background, but other than that, I think including all the flags for countries makes it much easier for readers to understand what country they see in the data even without necessarily looking at the y-axis

labels. I obtained flag shapes for the countries by looking up how to do so online, downloading flag icons, and then putting these icons into a “Flags” folder in the “My Tableau Repository” shapes folder. Then, I created two marks for CPI score: shape and bar. This way I could have the flag and the bar meet at the same data point (the country’s CPI score). The median CPI score reference line also makes it easier to see how countries’ corruption scores compare relative to other similarly populated countries. One thing that could be improved upon is the population size labeling, for while it is accurate and easily readable, there are no notes that say what these labels are. Again, another aspect that could be better explained is possibly the CPI score scale, but I believe that this is fairly easy to understand given that the countries are ranked in the visualization. So, viewers may have a hard time immediately picking up on what the numbers next to country flags mean. This visualization, in my opinion, does a great job of executing the simple task of ranking the most populous countries’ corruption scores.