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Analysis: Syrian Humanitarian Aid Visualization

**What is the audience supposed to do with this graphic?**

The visualization is likely intended to show the role each country plays in donating to Syria’s humanitarian crisis. As a reader, I should be able to examine the tabs and get a “big picture” easily. I should also be able to examine relationships and correlations among data that would not be obvious without the mechanisms of visualization.

**Are there better ways to display the data?**

The visualization suffices in its intent, but there are two misleading elements that could be improved. The use of bubbles is misleading. As per our text, humans tend to evaluate one dimension (e.g., height/length) rather than two or more (area). This is misleading because the area of each circle does not accurately convey a numeric quantity to the reader. For instance, on Tab 1, Canada appears to be about half the width of the USA, but their respective quantities ($818m and $132m) do not correspond.

Another way in which bubble charts distort the data is by failing to highlight small values. For instance, China, with its very large GDP, has a small donation both nominally and in terms of percent of GDP. There is clearly a story to be told here, but the visualization does not make it evident.

The other misleading element is the use of absolute figures in certain tabs. The absolute figures do not consider other relevant variables such as population and GDP. This leaves the reader unable to see important relationships. Fortunately, this visualization includes the donations as a percent of GDP, which is generally regarded as a reliable indicator of economic activity. My only criticism is that the percentages given are such small values (e.g., .000087) that it is difficult for less mathematically inclined individuals to interpret them.

For showing relative quantities, a bar chart is probably less ambiguous than the use of bubbles. Bubbles are likely more suited to show general trends of activity in a geographic location.

**Are there other variables we should include?**

The donation amount and GDP are most relevant. However, population and other variables could provide useful context. Luxembourg’s donation of $6.1m is sizeable considering its population is well under 1 million people.

Qualitative measures are very relevant in this matter, but I am at a loss for how to visualize them. Political and economic relationships between Syria will clearly impact a country’s role in humanitarian aid, but this likely requires a narrative approach. For instance, Russia has had an association with the ruling Assad family in Syria for several decades. Russia has also sold arms to Syria in recent history. This information isn’t present in the visualization, but such knowledge is critical in understanding the presented visualization.

**An alternate approach to visualization (sketch) is attached.**