VISUAL ASSIGNMENT 3: MAP IMPLEMENTATION
Notes on Changes made to the Design
CPSC 5320
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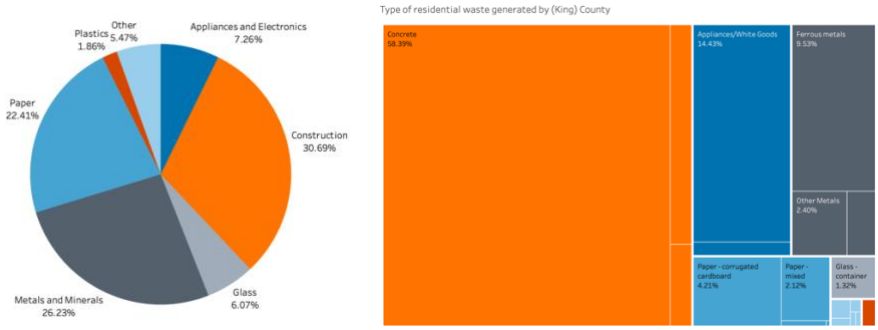
Change 1: Using Treemap instead of Pie Chart.

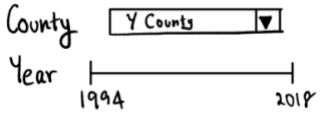
To show the different types of residential waste generated in each county, we initially designed the visualization to use a pie chart that would indicate what percentage each waste type contributed. However, when we made the pie chart, even after grouping various waste types into higher-level categories, there were still six categories plus "others". Displaying seven different color slices in the pie chart made it impossible to read and comprehend clearly, so we decided to change this view to a treemap instead.

The treemap displays percentages where possible and has percentages in the tooltip as well. In terms of showing relative quantity differences, the treemap area indicates the breakdown better and is more intuitive as well. The gaps and box structure in the treemap make it understandable even if one is unable to clearly see all the seven colors (even though we used a color-blind palette scheme). Here is a side-by-side comparison of both views. We felt that the treemap was significantly better at communicating the different waste types generated and the breakdown for each county and therefore made the change.



Change 2: Change in the range of years.

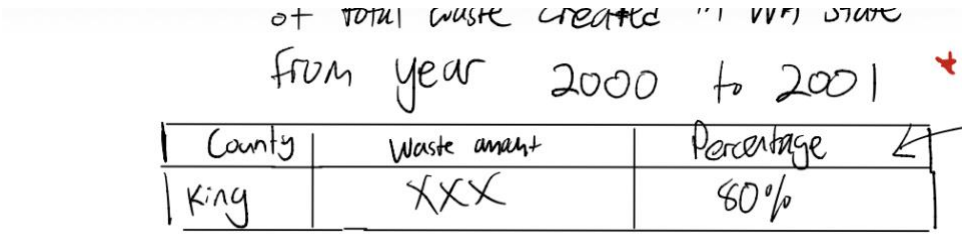
Initially, in our design, we proposed to have the dashboard show data for all years between 1994 to 2018 as shown below:



However, given time constraints and the way the data was formatted differently for each year, we were only able to clean and appropriately combine 5 years of data for 2014, 2015, 2016, 2017, and 2018. Much of the data for the older years was laid out differently, and we would have needed to do extensive manual cleaning to extract and combine it with the newer format. In the future, adding more years can be carried out as future work to improve the visualization. Data from more years would help improve the waste generation projections for each county.

Change 3: Moving the percentage table

The percentage table was moved from the visualization's first sheet (Where does waste go?) to the second sheet (Projections of Waste Generation).



The percentage values in the first sheet were bringing in too many details and we want the audience to focus on the map visualization and the total quantities of the waste generated is already available by interacting with the map. The focus here is the landfills and counties and the waste generation and waste dumping. Additionally, by moving this table to the next sheet it gave a good starting point for carrying out projections.