

1. How you worked with the data.

When I got the data I used it to create multiple datasets that would be represented as Pie and barchart data. I first used open refinement to fix a few problems I saw with the data but there were very few. I left null dates as this

2. What you analyzed about the data in terms of data variables and how that informed your choice of visualization.

First When i looked at the data i looked specifically for a correlation between the differing industries and their waste of each item than i looked towards how i can used the dates to display how we treat perfectly fresh foods i.e in a lot of case the term “use by” is not a indication of soilage but instead is a indication of product quality. Many items can stay fresh well past their “use by” but since this information is not widely known many perfectly good food items go to waste. Therefore I wanted my visualization to showcase the food waste crisis that has gripped the US and other developed countries.

3. Your design for the visualization: what channels and marks are in use and why did you choose them? What scales and axes are in use and why did you use them? What other information (e.g., legends) did you use and why did you use them?

My primary channel is actually also marked. The first pie chart I created is used to control the 2 other charts I had also created. By clicking on different sections of the first pie chart you would be able to better visualize which industry in Brooklyn produces the most waste. I

Continued this trend into my second pie chart which is used to convey the percentage of food that were perfectly ok to each but had been thrown away. You can also access this information by clicking anywhere on the pie chart. The 2 Marks I had were the circular grouping diagram and my bar chart which shifted depending on which section of the first pie chart was chosen. I Wanted to utilize starburst data on the first visualization that would open up to what we see in the second pie chart. Unfortunately I couldn't figure out how to get the starburst effect working properly so instead I created a separate pie chart to display this data but then I realized that this might skew information. For example in the webpage coffee shops produce the least amount of waste but if you check to see what percentage is wasted and what percentage is not it will tell the user that 50% of coffee shops throw away spoiled food while the other 50% doesn't. This is of course because there is only a sample size of 2 items therefore i created the bar chart to represent the number of items wasted depending on the industry. Lastly, I wanted to show the users how much money was wasted. I contemplated using a line chart but realized that wouldn't work as there wouldn't be an x axis therefore I simply used a circular grouping visualization mostly because it was something I had yet to work with yet. This would let the user know between each other industries how much money was wasted.

4. What are the interactions in the visualization? Why did you use each one? What aspect of working with data does the interaction address?

The first interaction I chose, which was the first pie chart, was to give better information to the user as to which industries wasted the most fresh food. In order to do this I want to originally have the first pie chart fall away and showcase the percentage and condition of the food

thrown out of a given through a starburst effect but instead this was moved to a second pie chart and bar chart. The reason I wanted the user to see each business and how much food they threw away and its condition was to demonstrate to the user that we throw away a lot of perfectly edible food that could go to shelters or people within the united states that are suffering from food disparities. The user can then go to the second pie chart which will display to the user the percentage of each food item that was thrown away. But to clarify this data when clicked the chart will be split into 3 categories “Fresh food thrown away” & “Rotten food thrown away”. The user can then use this information to make collusion about which business is the worst or if a certain business is justified in its waste.

#### 5. Your development process.

The first thing I did was take the Brooklyn waste data to see if there were any issues I needed to resolve within. I originally removed the null dates or dates that made no scene but I eventually decided on keeping those in as removing these pieces of data felt like I was skewing it. While cleaning the data i noticed that their was both date data as well as data describing the location of where each piece of trash was found I wanted to create a visualization of where each item was found and tie this to how many business where in brooklyn in total to give scale to the user but I got stuck attempting to implement it and had to focus on a few papers at the time so I couldn't pursue the visualization further. Instead I went about thinking how I could provide some kind of intractability to the use for the first pie chart which I had recently created. I originally wanted to use the pie chart and convert it into an interactive starburst chart. I attempted to implement this but got stuck multiple times instead opting to keep the functionality of the chart as a button. This gave rise to the bar chart and second pie chart. I used them to convey additional information that the first pie chart could not do alone. The barchart would convey how many items in

total were thrown away but more importantly tell the user their condition to let the user know how much fresh food often goes to waste. Secondly I would use the pie chart to give the user a better sense of the percentage of waste although the bar chart did do this to some effect. I believe that the pie chart and their interactions you can do with it propelled this even further. By looking at the second pie chart you can see what percentage of food was thrown away and in what condition by clicking on the chart it will change to provide information of the fresh food that was thrown away vs the spoiled food that was thrown away.

## 6. Overall project experience.

To be honest I didn't have the time I wanted to work on this project for as long as I wanted. I had a slurry of other assignments that needed my attention before this due date came up and found it hard to find time to complete what I wanted. I wanted to also explore some aspects of mapping in d3 but I simply didn't have the time to do so.