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CSCI 3002
Feb 11, 2021

Recitation 4: Information Representation

Dataset - Craft Beers Dataset: 2K+ craft canned beers from the US and 500+ breweries in the United States

Questions:

- Which drink has the most alcohol per volume?
- Which state has the most unique drinks?
- Which drink is the most bitter?
- What is the most common beer size?
- How many beers does each brewery have?
- What is the most common style of beer?
- What city has the most breweries?

Visualization tool- Excel

Comparisons and design rational-

Jaryd Meek -

- Which state has the most unique drinks?
    - By using the frequency of each state listed in the brewery_state column, I can then use the data to graph the number of unique drinks per state. This will show me how many drinks came from each state which I can use to answer the question.
- What is the most common beer size?
    - I will group the beers by the ounces column. This will give me the frequency of the different sizes, which then I can plot and see which is greatest. The greatest frequency will be the most common beer size, answering the question.

Elena Smith -

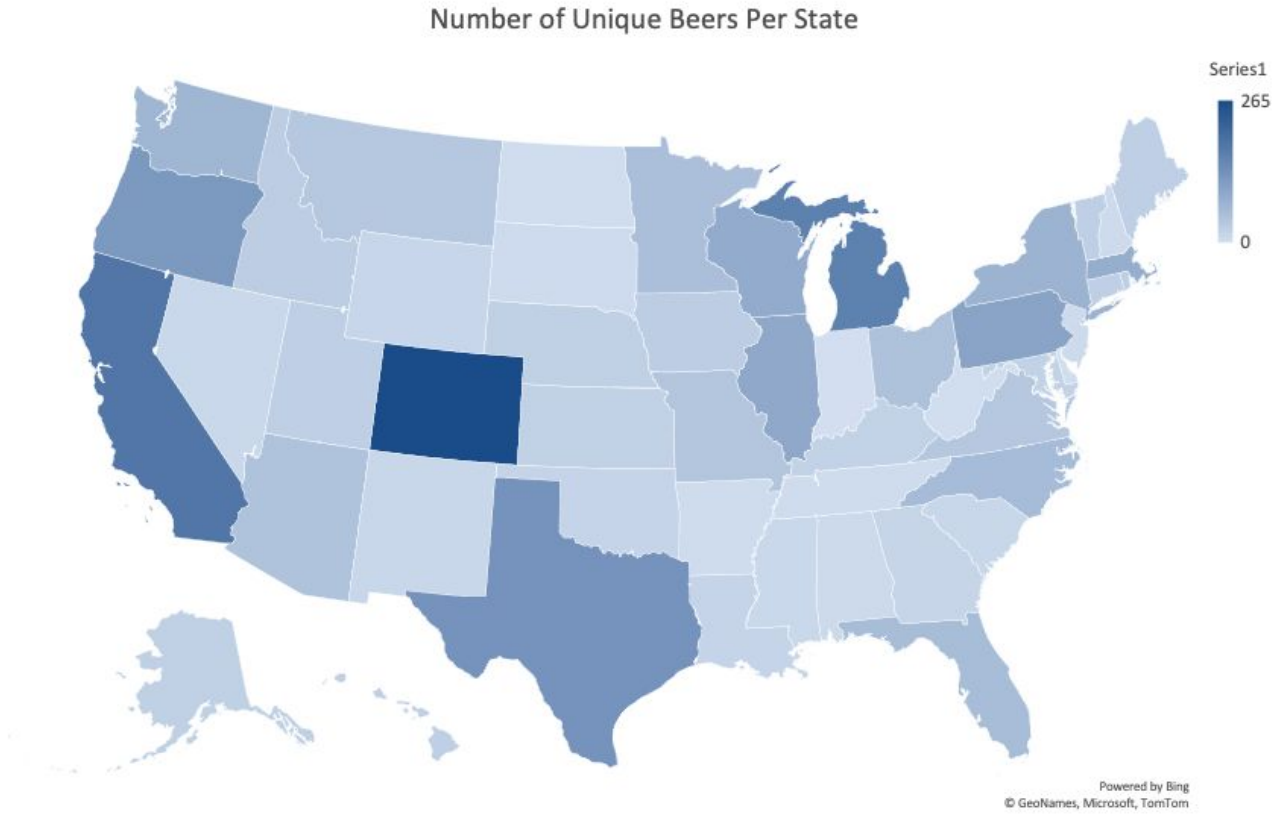
- What city has the most breweries?
    - Utilizing the brewery_city and brewery_name columns, I will look at the frequency of distinct breweries in each city, then see which frequency is greatest.
- Which beer is the most bitter?
    - By using the ibu and beer_name columns, I will reorganize the beer names such that the International bittering units (ibu) for each beer is listed from greatest to least value. I will then be able to see what beers are the most bitter by identifying the beers with the greatest ibu values.

Emily Parker -

- Which drink has the most alcohol per volume?
    - Utilizing the abv column and a frequency graph displayed at a pie chart, you can see the most common abv amount throughout the beer list. The drawback is that the pie chart can sometimes make different frequencies seem more similar.
- How many beers does each brewery have?

- This used the frequency of the brewery_id column and was displayed as a bar graph to better show the large array of breweries and generally which had the most. It ended up being very condensed however which is the downside.

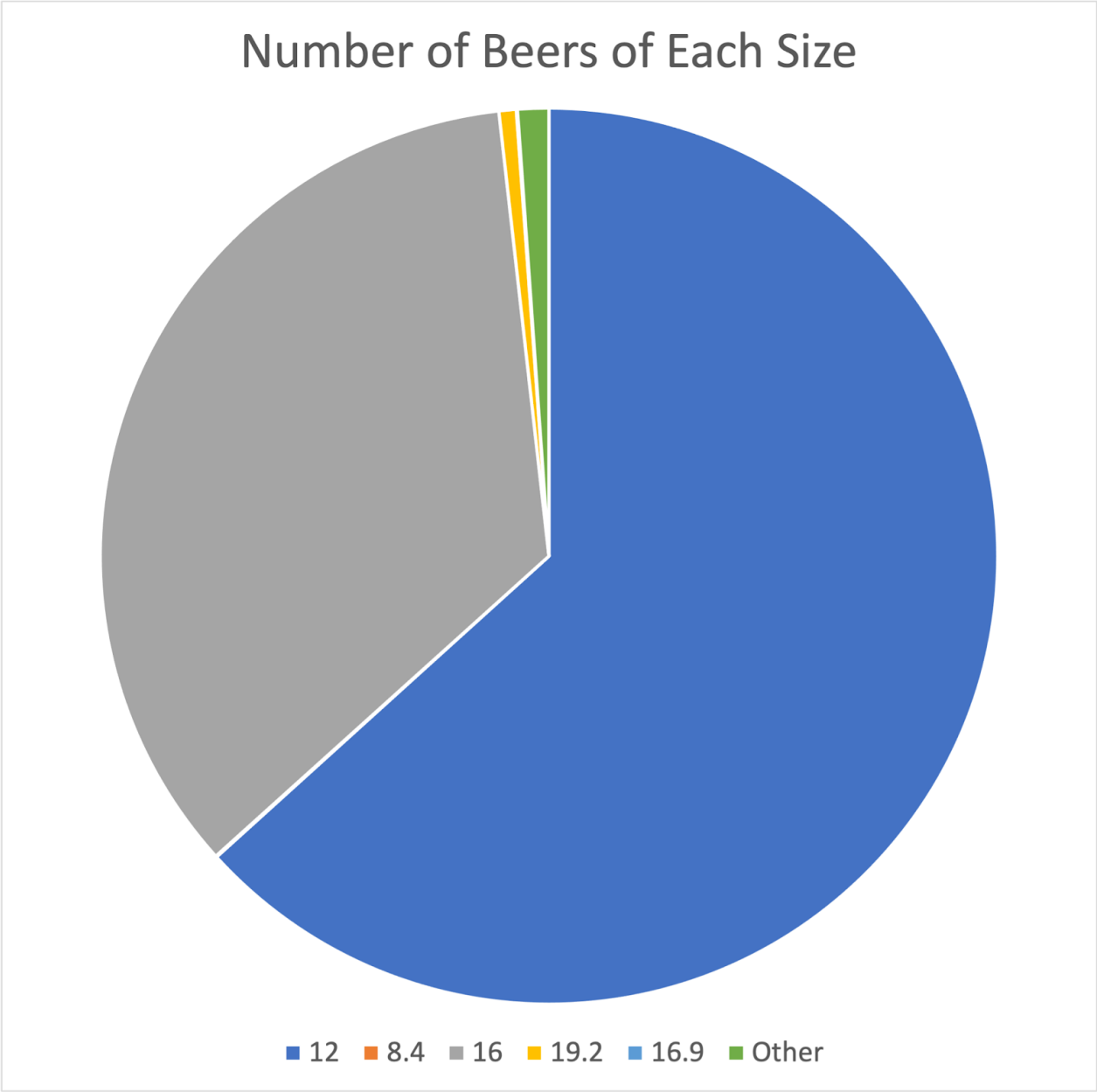
Jaryd:



Jaryd - I chose to use a US map as it allows you to easily see which states have a greater number of unique drinks. This answers the question as you can easily see that colorado has the highest number of unique drinks. An advantage of this approach is that it's really easy to see which states have the greatest number of unique drinks, while one disadvantage is that you can't see an exact number of beers from each state, possibly making it difficult to directly compare two states.

Feedback: It was a smart choice to use a US map to show the number of unique beers per state. However, I'm unable to tell the actual numbers of unique beers per state except for Colorado, so it might be beneficial to include the number of unique beers as text on top of each state.

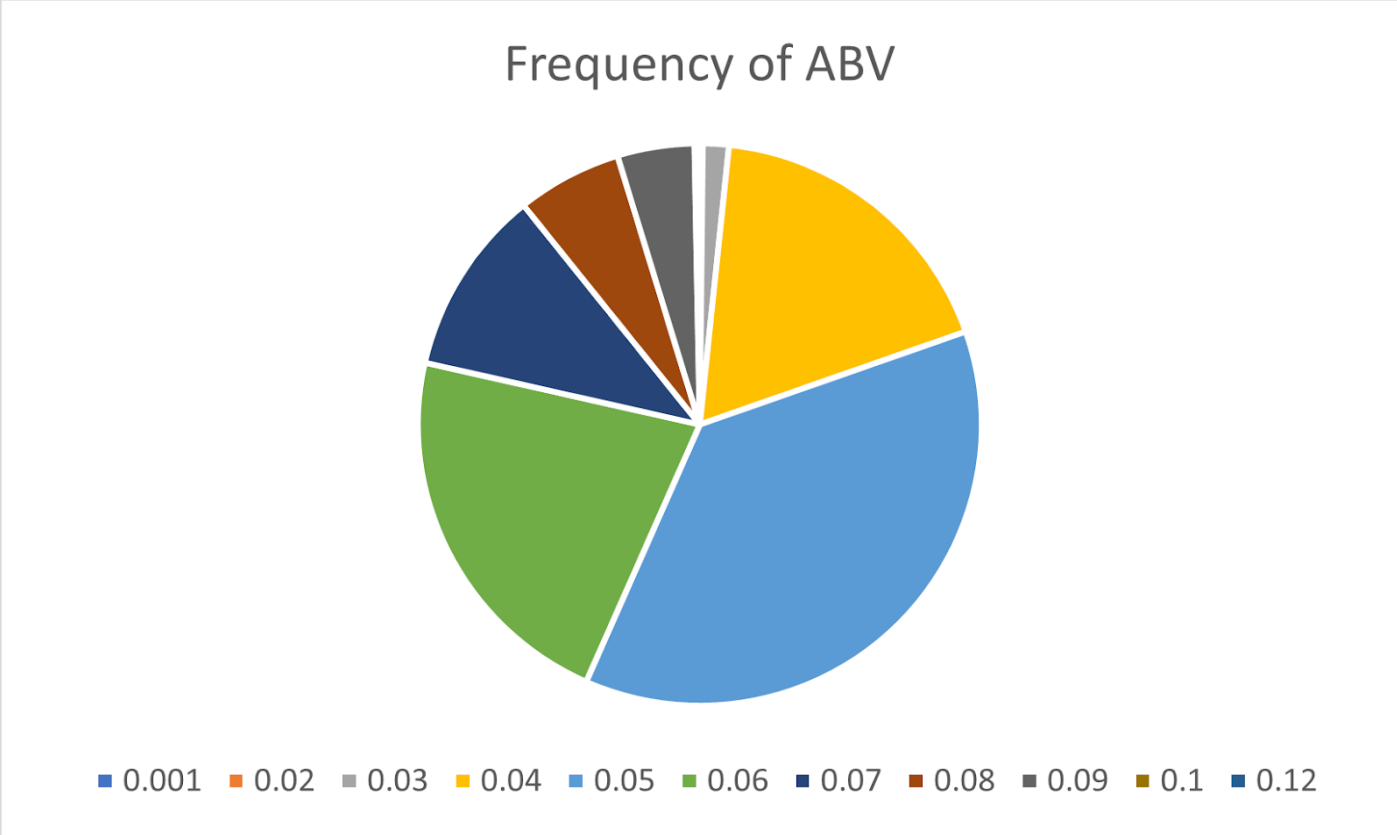
Jaryd:



Jaryd - I chose to use a pie chart for displaying this data as it easily allows you to see the proportion of one size of beer versus another. This also makes it easy to see which beer size is the most popular. One advantage of this graph is that it easily allows you to see which portion is the greatest allowing you to answer the question quickly, while one disadvantage is that it can be difficult to compare smaller sections to each other to see which is larger.

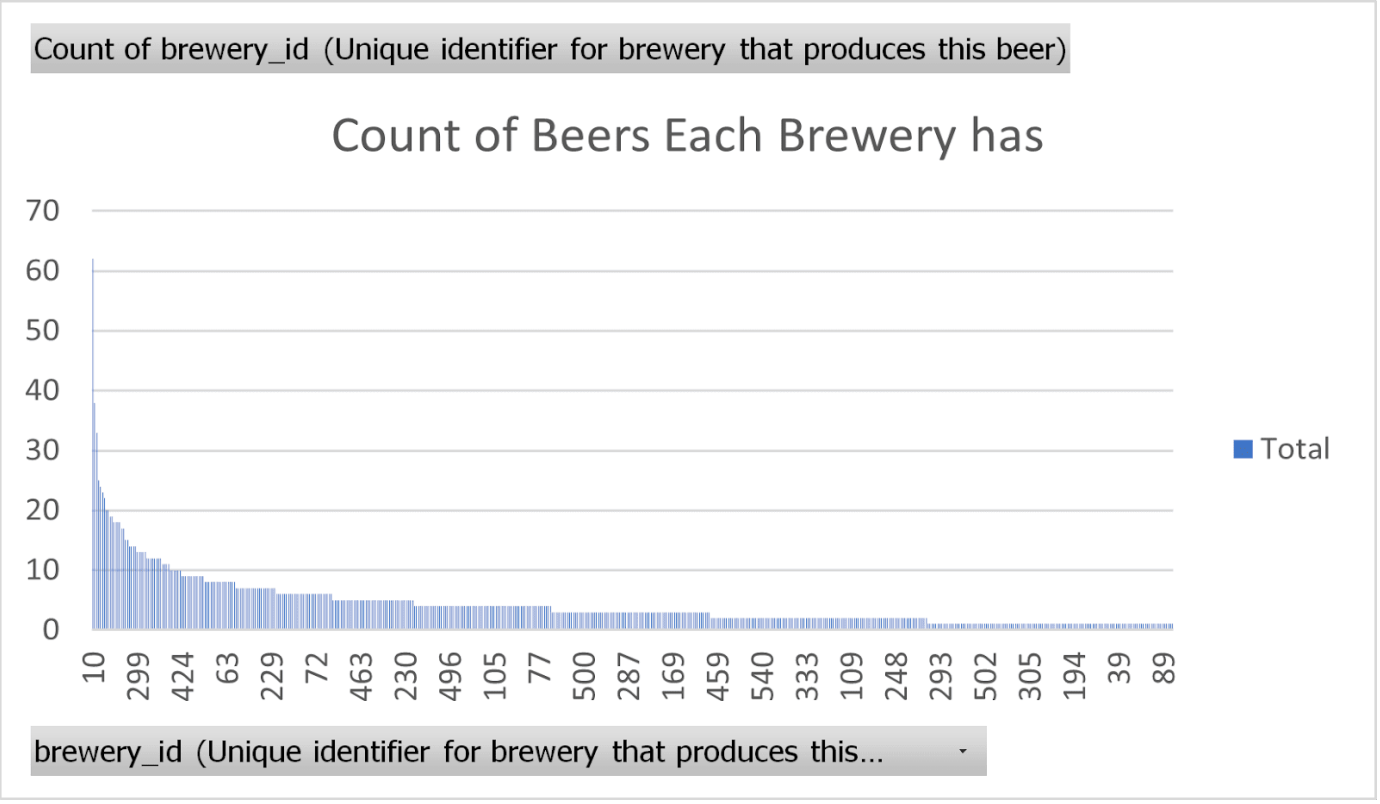
Feedback: Having 12 and 16.9 as both blue, I am not sure which one is taking up the large section of the pie chart. Possibly select a different color scheme

Emily:



Feedback: I think that a pie graph is a good way to visually show the frequency of ABV, and I like that you included labels at the bottom of the graph. However, I can't help but notice that I can only see about 7 colors in the pie graph while there are 11 labels at the bottom of the graph. Maybe my eyesight just sucks? So perhaps your graph could be improved by grouping together more beer sizes into an "Other" category to avoid including super small pie slices.

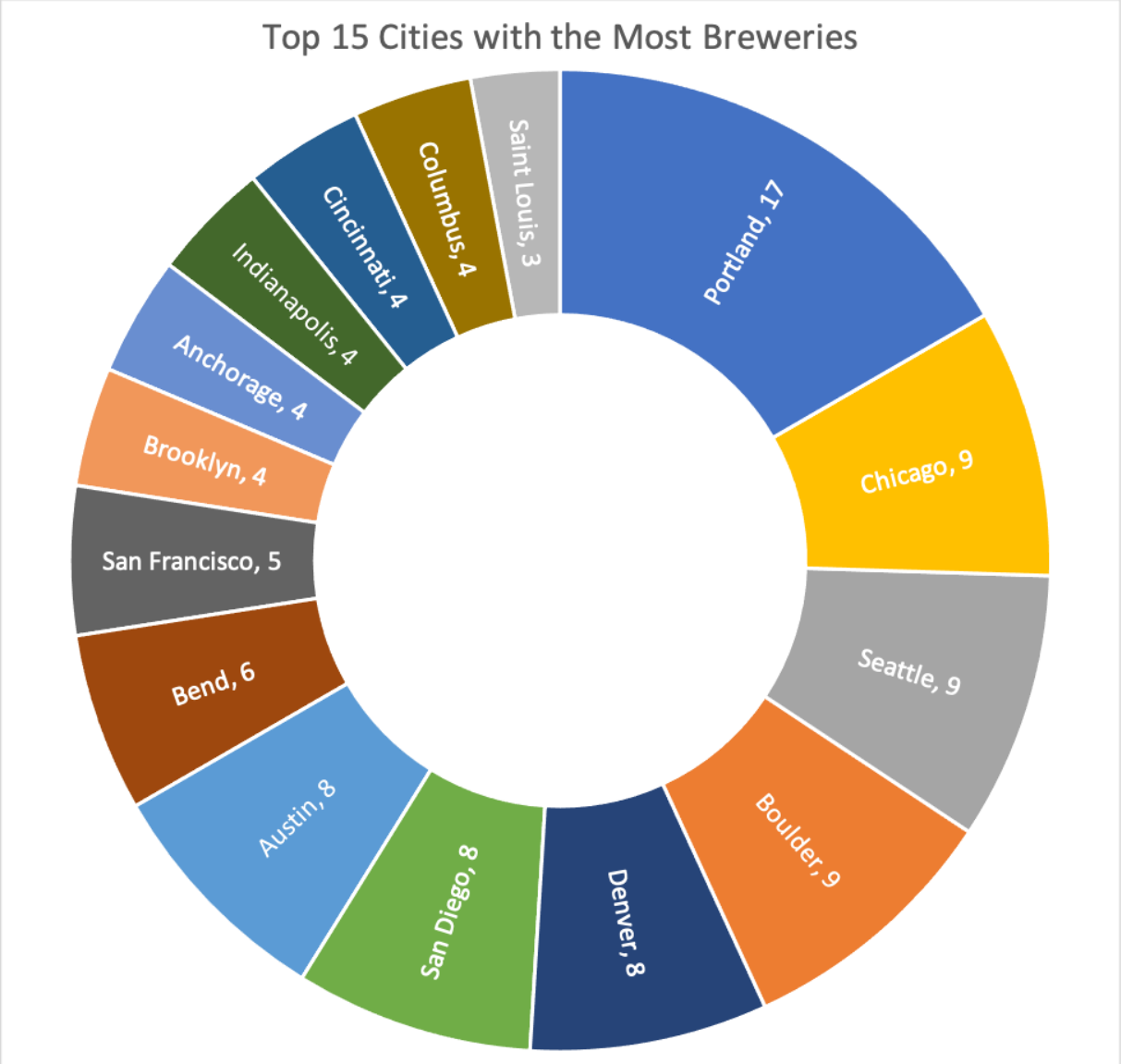
Emily:



Feedback:

This shows the number of beers that each brewery produces and quickly shows which produces the most since it is organized in descending order. However, it is difficult to see exactly how many beers a brewery has, as well as the actual number of breweries that have the same number of beers.

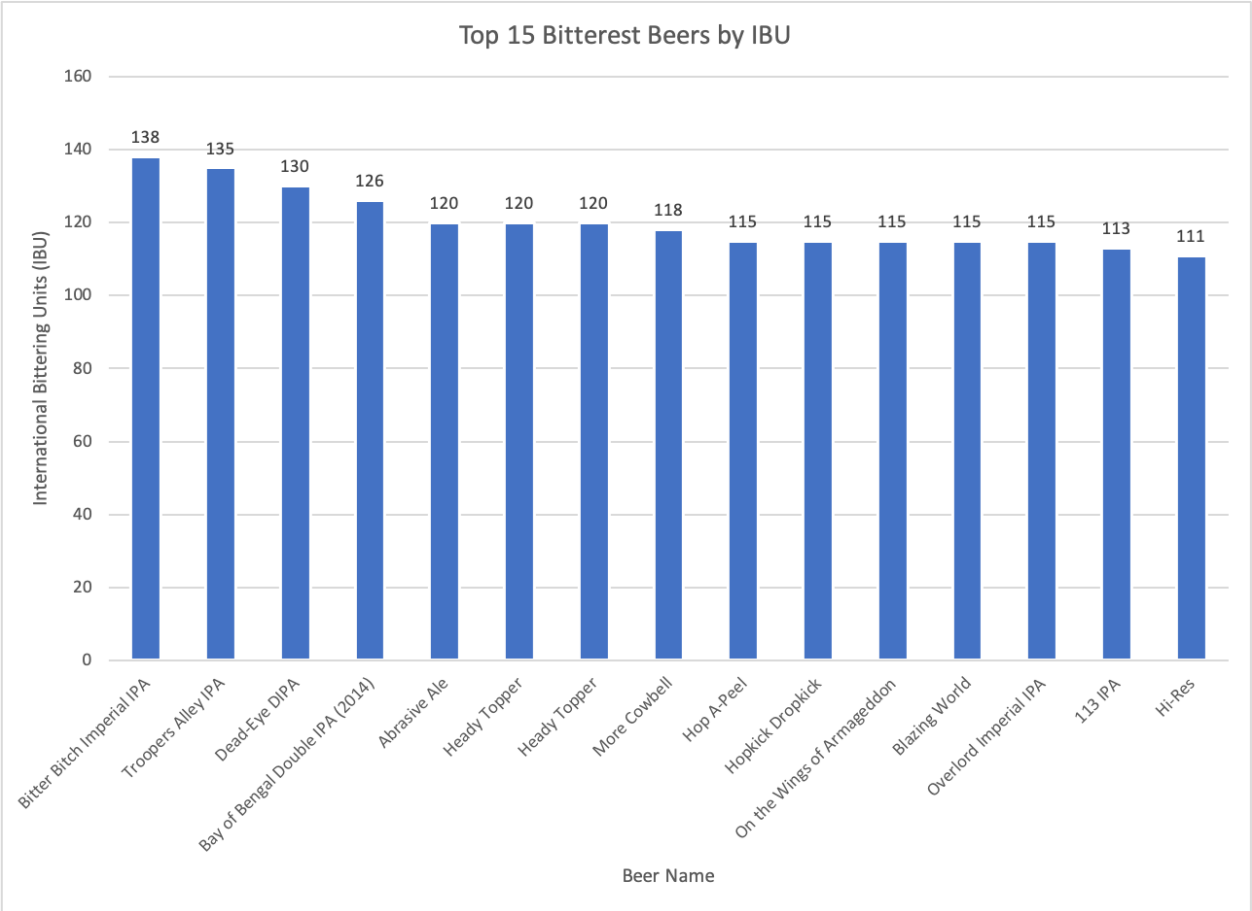
Elena:



Elena: I chose this chart type (called "Sunburst" in Excel) because I wanted to know the cities that had the most breweries in it, and I thought that it provided a nice visual comparison between the top 15 cities with the most breweries. Advantages of this approach is that I was able to label each slice with the city name and number of breweries as well as it's colorful such that a viewer is able to easily distinguish the slices. Disadvantages of this approach is that I was unable to include every single city that had a brewery in it and the labels are not horizontal which may make the graph confusing. This chart type may answer the question because a viewer is able to see that some slices are bigger than others.

Feedback: Honestly looks really good, but it does become a bit difficult to read with how the text is positioned

Elena:



Elena: I chose a bar graph to display the top bitterest beers because the values of IBU for the beers are very similar and looked identical in other types of graphs. An advantage of this chart type is that the viewer is able to see a height difference between the bars corresponding to each beer. A disadvantage of this bar graph is that even with only 15 of the 1405 beers that had listed IBUs within the data set, the graph still looks too condensed. This graph answers the question "Which beer is the most bitter?" by comparing the beers that had the highest IBUs where the IBU indicates the bitterness of that beer.

Feedback:

This clearly shows which beer is the most bitter, and I like how you only show the top 15 beers instead of all of the beers. This possibly could be improved by making the bars different colors allowing you to distinguish the different beers quicker.