Feelings Candy Evokes by State

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Dataset: candy.csv

What You Can Do with this Visualization

Questions you can answer

- How do people feel about a specific candy across the United States?
- In which regions of the United States is it more common for people to go trick-or-treating on Halloween?
- What percentage of people in Arkansas go out trick-or-treating on Halloween?
- Do people in New York like Gummy Bears or Twix better?

Tasks

- Select a candy from drop down to view feelings for that candy across all states in the US
- View which states had a higher percentage of trick-or-treaters than others
- Click on a state to view details (state name, average rating for selected candy in that state, total people surveyed in that state, the percentage of people in that state who went trick-or-treating on Halloween)

Design Overview

The candy dataset is intriguing because it allows users to answer questions they may have never thought about asking when it comes to emotions and candy. There were many opportunities for how we could display the data to support exploration. We wanted to design our visualization to provide comprehensive yet clear insights about the data cases and their attributes. We decided to create a map that would display the average rating for each candy by US state, where the average rating would be displayed by coloring the state. Additionally, we would use a color gradient to distinguish states that had a higher percentage of trick-or-treaters than others. We thought users might be curious how trick-or-treating might affect feelings about candy.

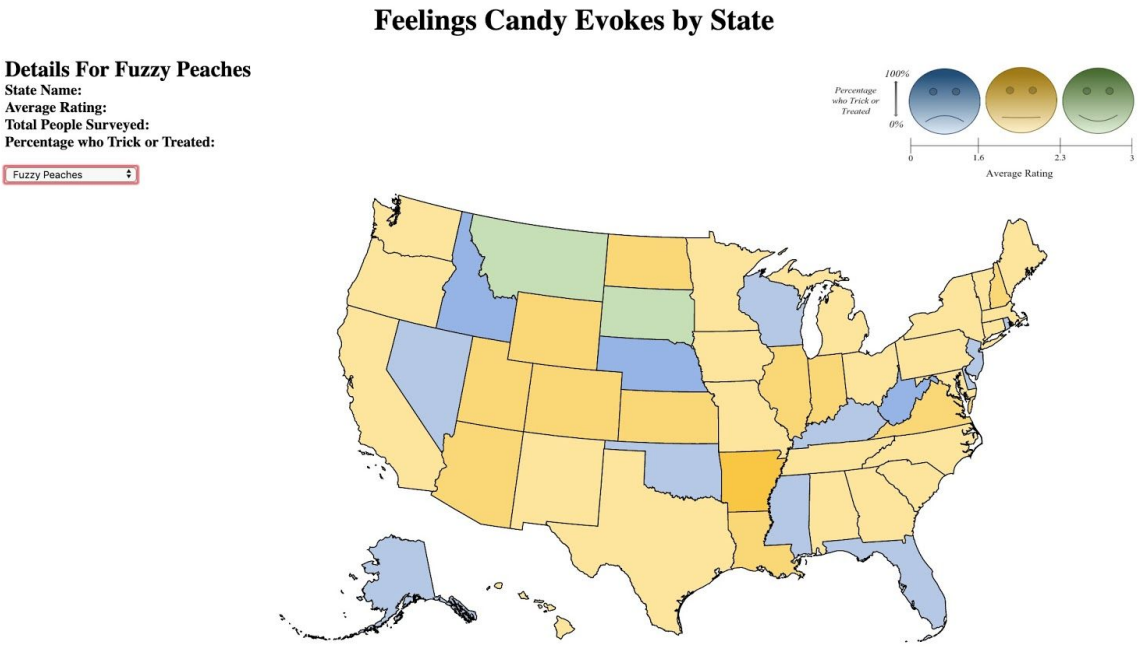
We built the map using geojson and topojson for d3. While the dataset contained information for all 50 US states, the Canandian Provinces, and certain cities across the globe, we narrowed our focus to just the US. Given the constraint of screen size, we knew it would be incredibly difficult to see and interact with individual states, provinces, or cities on a world map displayed on a laptop (which is where we expect our visualization to be viewed). While we considered displaying Canada and the US, we were limited to the json resources we could find online. We could not easily find a json file that would allow us to project only these two regions.

To calculate the average ratings for each candy, we used a weighted average. Every “joy” response was multiplied by 3, every “meh” by 2, and every “despair” by 1. These numbers were added together and divided by the number of responses corresponding to that candy for each state. To calculate the percentage of respondents who trick-or-treated, we divided the number of trick-or-treaters by the number of respondents for that state. We rounded both calculations to two decimal places for simplicity; while this may result in some data loss, it is marginal.

User Interface

Users are first brought to a US map that is gray to start. There is a key showing the color code used in the visualization to the right and a placeholder for details-on-demand to the left. Users

can begin by selecting a candy from the drop down menu. Below is a screenshot of the map when the user selects “Fuzzy Peaches”.



Each state is colored based on the average ratings participants from those states gave each candy. The key shows the cutoffs we used to determine the color of the state based on a weighted average. We used green for “joy”, yellow for “meh”, and blue for “despair”. The colors were chosen given their associations with positive and negative feelings. Additionally, the saturation of the state color is based on the percentage of people in that state who went out to trick-or-treat on halloween. Lower percentages are shown by less saturated colors and higher percentages are shown by more saturated colors.

When the user clicks on a state, details are available on demand to give the user perspective on a specific state. As long as a candy has been selected, when the user clicks on a state the details for the state appear in the top left. This includes state name, average rating for that candy in that state, the total people surveyed in that state, and the percentage of people who went out to trick-or-treat. This helps give the user insight into how that state ended up as a certain color. Below is a screenshot of the map when a user has selected “Fuzzy Peaches” as their candy and has clicked on Arkansas to view details.

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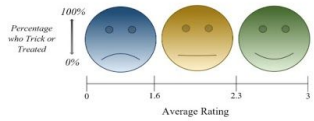
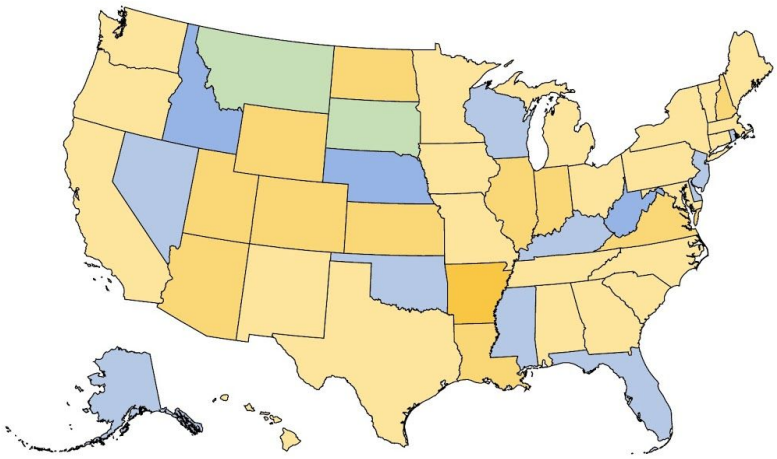
Details For Fuzzy Peaches

State Name: Arkansas
Average Rating: 1.67
Total People Surveyed: 3
Percentage who Trick or Treated: 67%

Fuzzy Peaches





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