Ragger Jonkers - 10542604
Ellen van ‘t Klooster - 10207309
Belle Bruinsma - 10676759
Urscha Fajdiga - 11377437
Edwin Steffens - esteffe1

Problem 1: Design critique

Critique:

The context of this visualization is the revenue of different movies from 1986 to 2008. You can compare the total revenue of box offices during this time period per week and also get insight in the revenue of the separate movies.

When looking at the principles of graphical integrity of Tufte, we see that the scales are not appropriately labeled. The y-axis is not labeled and does not start at zero and goes up and down with positive values, therefore it is hard to see total revenue. You can see which category the film is in regarding revenue and get an approximation of the revenue based on the surface of the revenue, but no absolute value.

When looking at Tufte’s design principles, we see that it adheres to maximize data-ink ratio. There is no background, little chart-junk, and there are no horizontal or only some vertical lines in the background of the graph. Data density is high and information is layered.

Design principles are used because contrast is used correctly, the color is used to group the categories together. The same color is repeated for the categories throughout the whole graph, so there is repetition. There is little chart junk in the graph.

Visual encodings that are used are different colors, namely that every category has a different color. These are not used correctly because the categories are disproportional to each other but the colors are evenly getting darker with every category. Another visual encoding that is used is height. The higher a ‘movie’ is, the higher it comes up or down from the middle. This is also disproportional because if a movie is two times as high as another one, it does not mean that it made twice the revenue.

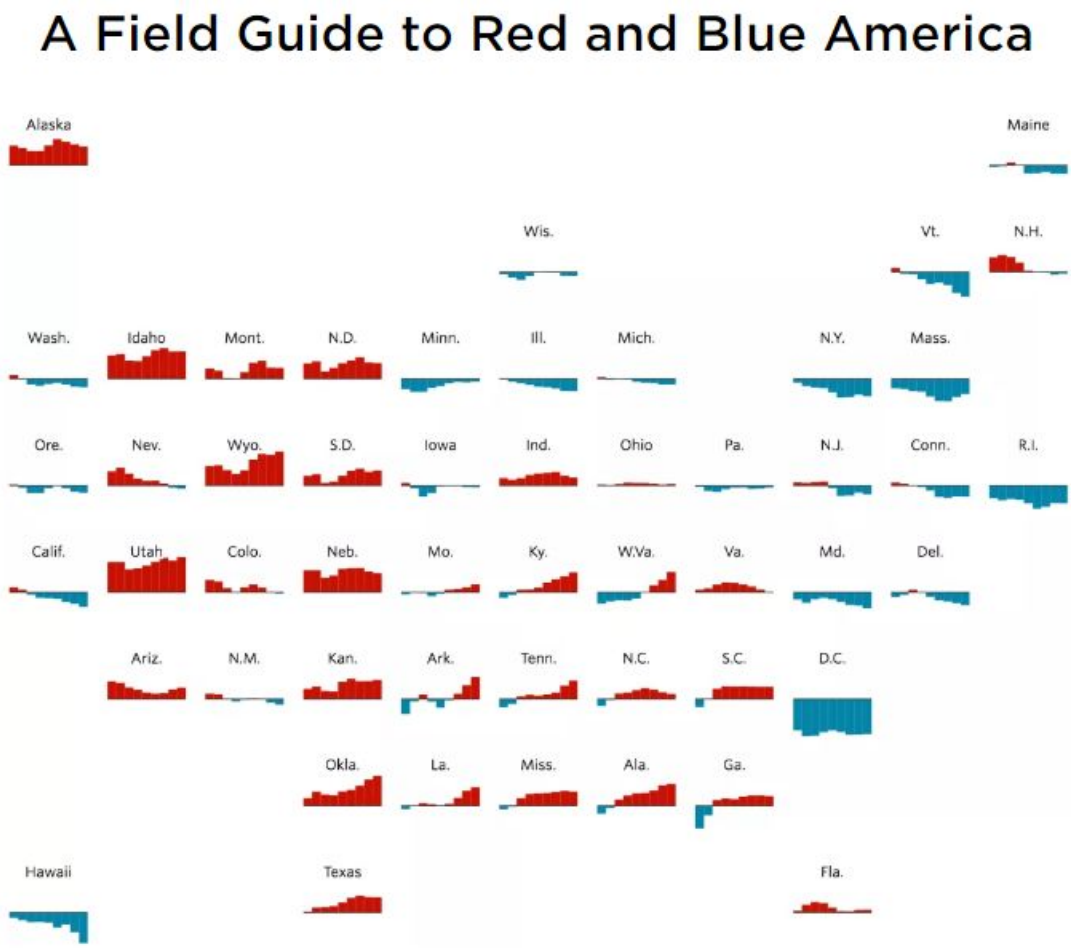
The intended goal of the visualization is to show the comparison of the different revenues that movies made and to show that contenders for the Oscars tend to build a smaller audience over time compared to ‘bigger’ movies. This was not achieved since the graph does not show which movies are Oscars and which movies are successful without being an Oscar contender. The holiday and summer season blockbusters are easily visible however, since months are located at the X-axis.

If we would do anything differently, we would put names of Oscar contenders in the graph (writing the title with a different color than other movies) so the viewer can easily see which those movies. Besides this, we would make better use of the interaction in the graph. Now if you click on a movie, you get some information about the movie. We would add some more

detailed information about the movie (total revenue, exact period it has been in the cinema, number of visitors).

Problem 2: Questions corresponding to the readings

We picked the following visualization:



Source: http://graphics.wsj.com/elections/2016/field-guide-red-blue-america/

Some of Bertin's characterization of visual variables can be found in this graph.

- Position. The position of the graph for each state corresponds to the geographical position of states. The result is that the graph depicts a map of the US. This way you can easily find a certain state and you can see some interesting different in voting habits between for example north west and south.
- Color. Color makes it very clear which states have voted democratic and which states have voted republican.

The designer is trying to show us how the voting habits of the separate states in the US have developed over time.
Some tasks this visualization should help with are:

1. Which states voted republican and which states democratic, and how have their voting habits developed over time?
2. To what extent is a state democratic or republican?
3. Which parts of the US are democratic and which parts are republican?

The first task is partly achieved. You can see which state voted republican or democratic, made quite clear by the use of red and blue color and the barcharts. However, the graph lacks an legenda on the years. Data is shown from ‘80 until ‘12. This is explained in the article but it would have been nice if this would have been shown in the graph itself.
The second task is not completely achieved. The graph lacks an explanation on the y axis. In the article is an explanation. The higher the bar chart, the higher difference of inhabitants who voted republican or democratic relative to the nationwide vote. It would have been better to incorporate this explanation in the graph itself.
The third task is completely achieved. Thanks to the position of each bar chart, together depicting a map of the US, you can see some interesting geographical differences in voting habits.