Summary

The visualisation seeks to show how arrival delays have changed over time across the United States mainland. We also highlighted the worst offending states and the best performing ones to see if there are any patterns across the states and years.

There are a few things we note and take away from the visualisation.

First and foremost, across the years, it seems like northern/ western states tend to perform better compared to their southern/ eastern counterparts in terms of delay. For example, if one compares New York to Florida, we note that even though their population is similar (and we can make the case that New York being the business capital might see more flights in and out), New York still tend to experience slightly less delays (except the most recent 3 years).

Secondly, it seems like there flights delays are extremely common across the United States. In the whole dataset, across the 13 years and 50 states, there are only about 10 instants where over the whole year, the state had early arrivals.

Over the years, there seems to be more and more delays. This is especially obvious when one compares the starting year 1995 to the ending year 2008. The circles tend to be larger across the board. It seems to suggest that perhaps, infrastructure investments have not been keeping up with the general trend of more flights

Feedback

The initial feedback was that there were too much blank space in the map. The initial visualisation used the whole of the United States including Alaska, Puerto Rico and Hawaii. This resulted in a significant chunk of empty space. When I looked at the data set, I note that those 3 places have significantly less flights as compared to the states on US mainland. The feedback collected mentioned that it will not be as useful to include those regions and hence, the final product focus strictly on just the US mainland.

Also, I received feedback that there is insufficient information with regards to the circle as it was not immediately obvious how does a circle compare to another one when they are rather similar in size. Thus I added tooltip so as to the exact data that was used to generate that circle. This was further topped up to change minutes into thousand hours so as to make the numbers easier to consume.

The feedback mentioned that the light grey used to colour all the states were distracting and does not seem to serve any purpose. Hence everything was changed to white and maximum and minimum delay states were included as dark grey and light grey respectively

There was a feedback that mentioned that the colour was unintuitive initially. I used green for delays and red for early arrivals as I wanted to avoid a scenario where it was very heavy on the user’s senses with a screen of red. Upon receiving the feedback, I reduced the size of the circles marginally and decided to use invert the colours.

Resources

<https://openflights.org/data.html>

<http://bl.ocks.org/d3noob/a22c42db65eb00d4e369>

<https://www.dashingd3js.com/svg-paths-and-d3js>

<https://bl.ocks.org/mbostock/7621155>

<http://bl.ocks.org/phoebebright/3061203>

<http://jsfiddle.net/amullins/grQmf/1/>

<https://stackoverflow.com/questions/13241475/how-do-i-include-newlines-in-labels-in-d3-charts>