

## Data visualization project

### Insight 1

The bar chart shows the average of departure delay time (including earlier departures), out of all departures. GUM has the highest average departure delay, while VEL has on average departed the earliest, 9.75 earlier than normal.

#### Design & color choices

Blue and uniform color was chosen because having color would be a distraction as there are too many airports. A bar chart is chosen because we just want to know the average for each airport and be able to compare them to find out which airports have the highest average delay. As one point is required for each airport, a bar chart is chosen.

### Insight 2

The stacked bar chart shows the reasons for delay per airline. Each airline's total delay is split into different reasons, such as airline delay etc. Notably, for WN, departure delay counts for a large portion of delays, while for the other airlines, departure delays also counts for a sizable amount.

**Air system delay actually counts for a small percentage of delays.**

#### Design & color choices

A stacked bar chart with color was chosen because we wanted to know the different reasons for delays and being able to identify which are the biggest reasons for delay for each airline. Color would make the reasons more clear, while a stacked bar chart allows one to see the breakdowns as well as compare the sub totals with other airlines to see if the airlines have the similar proportions for reasons for delay.

### Insight 3

From this map, we can see where the most cancellations occur, as % of total flights for airports by state. It appears that most cancellation happen in VT, which had around 4% of total flights which were cancelled. States in the northeast region also had higher cancellation percentages.

#### Design & color choices

A map was chosen because we wanted to have a clear overview of % cancelled flights by geographic area. Color of blue with shading was chosen because its easy to identify the darker areas which would have higher % of cancelled flights.

#### Insight 4

There doesn't seem to be a correlation between % of flights cancelled and average delay for all airports in state. **This suggest that cancellation and delay can be considered separately, or may due to different reasons.**

#### Color & design choice

Maps were chosen as it best represent what we want to see at state level. Color gradient is used as it best shows the level of delay and cancellation, whereas additional colors would be confusing.

#### Link to Tableau public visualization:

Scroll down to 'more details' – meta data to see the other sheets

[https://public.tableau.com/shared/RB79SKXFT?:display\\_count=y&origin=viz\\_share\\_link](https://public.tableau.com/shared/RB79SKXFT?:display_count=y&origin=viz_share_link)