

Insight 1:

<https://public.tableau.com/app/profile/fathallah.elmasri/viz/AirlinesDelayRank/AirlinesDelayRank>

The visualization indicates the rank of airlines based on the average delays in minutes. HA airlines has the highest number of delays (22712) minutes, the second airline on the list EV, has an average of (21939) minutes. VX airlines has the lowest number of delay minutes (13119).

The bar chart is used to visualize the insight, as it is better to be used for comparison. The color is chosen as blue, using blue color will not affect color blinded audiences or stakeholders. When creating the visualization, values were sorted from higher to lower for better visualization.

Insight 2:

https://public.tableau.com/app/profile/fathallah.elmasri/viz/CancelledFlightsByState_16249707215640/CancelledFlightsbyState

The dashboard shows that California has the highest number of cancelled flights (668), followed by Illinois with (563) cancelled flights. On the other hand, West Virginia State has one of the lowest number of cancelled flights (3).

The Map chart is used for this visualization, as we need to represent geographical data (states). Automatic Color Palette was chosen as we have quantitative data that needs to be represented on a map.

Insight 3:

<https://public.tableau.com/app/profile/fathallah.elmasri/viz/Dashboard-DepartureArrivalDelaysByState/Dashboard-DepartureArrivalDelaysByState>

The Dashboard shows that California also has the highest number of departure delays (345,558), followed by Texas (310,273). This result is inline with arrival delays, as California and Texas have the top Ranks. Finally, States like West Virginia, Guam and American Samoa have the lowest Departure delays, less than (1000).

The Treemap and bar chart are chosen as we need to make a comparison between departure delays and arrival delays on a state level. The visualization helps the audience to easily identify the states with the highest arrival delay and departure delay. Colors were chosen for the two visualizations to be in the same color range to achieve consistency and comfort for the eye. The color selection was considered for not affecting color blinded audiences.