

The dataset is a publicly available data from Department of Transportation detailing the on-time performance of US airlines for the month of August 2022.

**Definition:** A flight is considered departure delay when Dep Delay column records more than 0 minutes with each number representing how many minutes a flight is early or late. Vis-à-vis for arrival delay.

Please use the provided dataset (but not limited to) to offer insights for the operations performance of various airlines. **Please note that to be considered for the position, the visualizations will have to be in Tableau.**

1/. Daily trend of how different airlines perform in terms of on-time departures and cancellations.

- a). Trend rate of departure delays per flight flown.
- b). Trend rate of cancellations per flight.
- c). Trend rate of departure delay minutes per delayed flight flown.

2/. Comparing two Texas city hubs, United's operations at George Bush Intercontinental Airport & American's at DFW: a). compare each airline's flights' departure delays on shorter routes (distance  $\leq 500$ nm) vs longer ( $> 500$ nm). b). What time of day and day of week do we see more departure delays?

3/. Top and bottom 5 on-time departure performing airports for each regional airline. Any problem-child aircrafts that consistently underperform?

Extra 4/. Daily trend of how AA performs vs other airlines combined at our hubs

- a). Trend rate of departure delay per flight flown.
- b). Trend rate of cancellation per flight.
- c). Trend rate of departure delay minutes per delayed flight flown.

Extra 5/. Situation challenge:

- a). I am a business traveler and I want to take a direct flight to make sure I get to NYC on-time for my meetings. I am willing to fly any airline and I can fly out of either airport in Dallas-Fort Worth metro area. What top 5 options do I have for a Tuesday morning flight?
- b). Expand the options above to account for travel analysis between any two cities with user inputs.

Extra points on any meaningful additional insight/viz/feature you'd like to add.

Link to the dataset:

<https://docs.google.com/spreadsheets/d/1JRM7y7hh9s14YS5wmRO0anKQ4u2sn5zc7/edit?usp=sharing&oid=102979264305411939125&rtpof=true&sd=true>