

## **Project 4: Flight Delay Visualization**

**Comparing the monthly cancellation flights between Chicago O'Hera International and John F Kennedy International Airports?**

### **Tableau Link**

<https://public.tableau.com/authoring/TheDepartureDelayTimeofChicagoOHarevsJFKInternational/Sheet1#1>

### **Summary:**

The chart shows an increase in monthly cancellations at Chicago O'Hare international airport compared to JFK International airport. February has the most cancellations at Chicago O'Hare airport, with 94 canceled flights, with improvements in flight cancellations from March to May before having a slight spike in cancellations in June. JFK International had January as the highest number of cancellations, with 62 canceled flights, with the lowest flight cancellations of 3-4 flights per month from September to December.

### **Design:**

- Used area chart to show a clear visual comparison of the data for both airports.
- The colors is changed to help visualize the data and the color contrast makes easier to analyze the data.
- The font is changed for simplification and effective typography.

### **Resource:**

<https://www.youtube.com/watch?v=9xqHA732LMA>

## What is the maximum arrival delay time per airline for each state?

### Tableau Link

<https://public.tableau.com/authoring/MaxDepartureTimeForAirlinesPerState/Dashboard1#1>

### Summary:

This Dashboard analyzes the maximum arrival delay times for each airline per state. For American Airlines (AA), Illinois had the highest maximum arrival delay time of 1,455 minutes, followed by New York with a delay of 1,364 minutes. In contrast, South Carolina had the lowest maximum arrival delay time with only a 4-minute delay.

On the other hand, a smaller airline like Hawaiian Airlines only flew to eight states, with all states except New York having a maximum arrival delay time of less than 320 minutes. New York was an outlier with a maximum arrival delay time of 1,391 minutes.

### Design:

- Used simple gradient color to distinguish between the size/volume of the values.
- Used three different visual charts
- Changed typography for simplification and effective typography.

### Resource:

<https://learn.udacity.com/nanodegrees/nd098-oneten-t2/parts/cd0337/lessons/ls0199/concepts/95a6b103-95ff-47b9-9315-9ae7f037b5f2>

## What is the cause of delay in the top 10 airports with the worst delay arrivals?

### Tableau Link:

<https://public.tableau.com/authoring/AirportDelaysDistribution/Dashboard1#1>

### Summary:

The dashboard displays data on the ten states with the worst dealy times in US domestic flight in 2015, with Chicago O'Hare International Airport having the highest number of delays. The data shows that departure delays (161,133) were also the primary cause of delays at Chicago O'Hare International Airport, followed by arrival delays (98,900), with security delays accounting for only 118 delays.

In contrast, JFK International Airport which is another big airport had departure delays of 67,570 minutes and arrivals delays of 31,570 minutes.

### Design:

- Used simple gradient color to distingues between the values.
- The font is changed for simplification and effective typography.
- Used a combinations of Treemaps and Histogram for a better visual analysis.

### Resource:

- <https://www.youtube.com/watch?v=C5qYi5TII9I>
- [https://www.youtube.com/watch?v=rhal-F\\_tFgU](https://www.youtube.com/watch?v=rhal-F_tFgU)
- <https://learn.udacity.com/nanodegrees/nd098-oneten-t2/parts/cd0337/lessons/l0199/concepts/95a6b103-95ff-47b9-9315-9ae7f037b5f2>