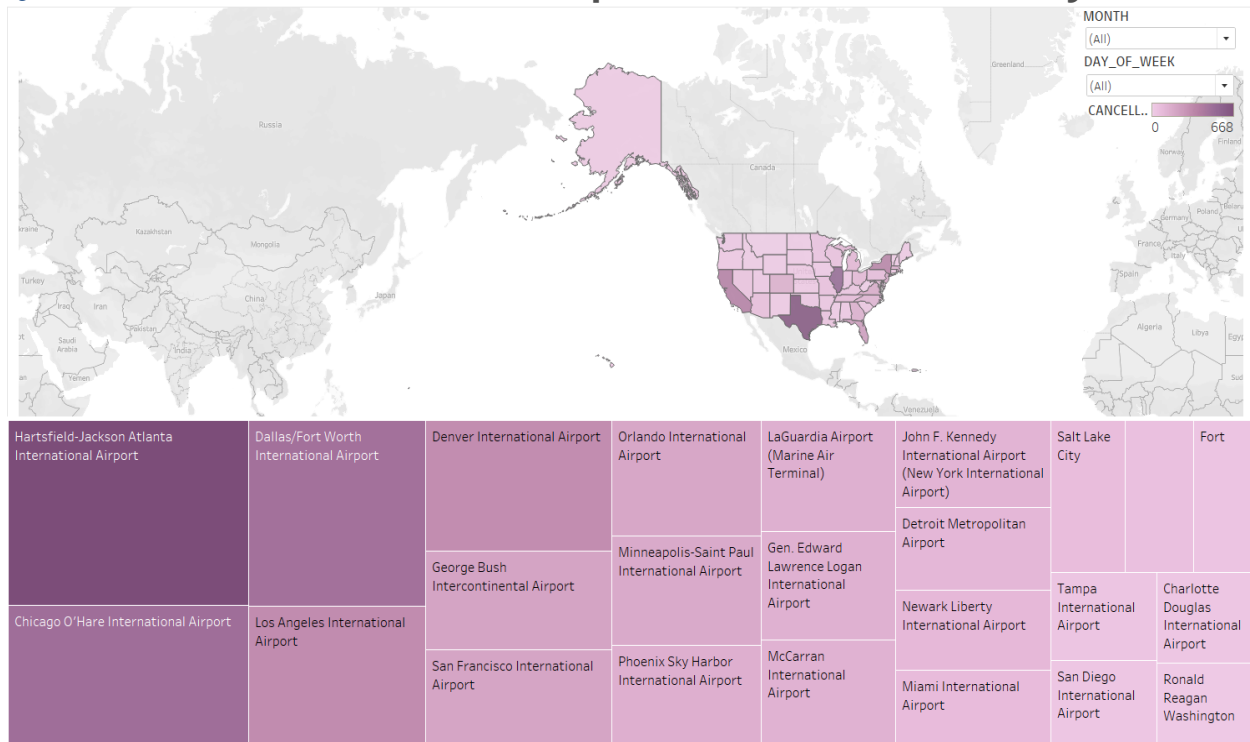


## Question 1: Which airlines or airports have the worst delays?



### Links:

[https://public.tableau.com/app/profile/ahmed.mohamed4731/viz/Dashboard\\_16652606775960/Dashboard1?publish=yes](https://public.tableau.com/app/profile/ahmed.mohamed4731/viz/Dashboard_16652606775960/Dashboard1?publish=yes)

### Summary:

This interactive dashboard shows us the answer to the following question, "Which airlines or airports have the worst delays?" As it is clear, it contains a map that contains all the states in the US and shows the number of canceled flights in each of them.

It also contains a heat map to show us the 24 most delayed airports in the year 2015. Hartsfield-Jackson Atlanta International Airport tops the list with 62.505 hours of delay.

### Design:

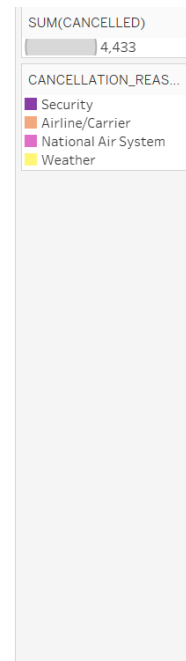
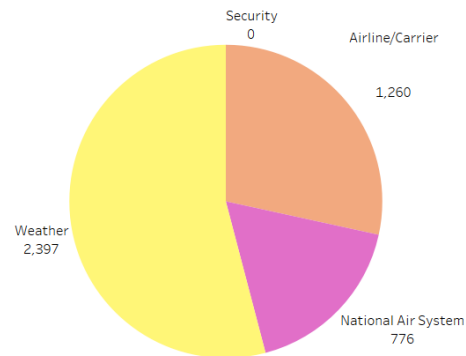
- I used two filters (Day & Month)
- I tried to unify the colors so as not to distract the user and I can focus on the purpose of the board
- Avoid using colors associated with color blindness
- I used the map because it is the best visualization that can be used to represent the regions

### Resources:

<https://www.kaggle.com/usdot/flight-delays/data>

## **Question 2:** What causes delays?

causes of delays



### **Links:**

[https://public.tableau.com/app/profile/ahmed.mohamed4731/viz/Question2\\_16652616018580/Sheet4?publish=yes](https://public.tableau.com/app/profile/ahmed.mohamed4731/viz/Question2_16652616018580/Sheet4?publish=yes)

### **Summary:**

The above figure describes the common reasons for canceling flights, and it focused on reasons, foremost of which is the weather, where 2397 flights were canceled, and then because of airlines, with a number of 1260 flights. Here we see that the difference is very large, and the weather is an important factor in canceling flights.

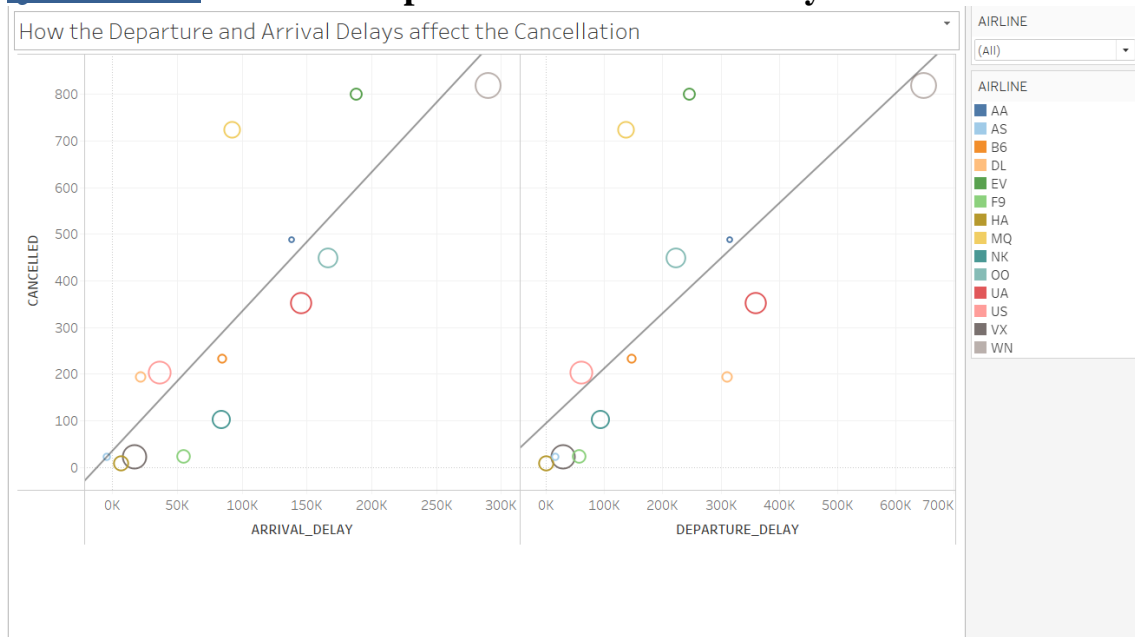
### **Design:**

- Use a chart Pie Chart because the comparisons are limited.
- The selection of colors comes to be readable to all and into consideration for people with color blindness.

### **Resources:**

- <https://www.kaggle.com/usdot/flight-delays/data>

### **Question 3: How the Departure and Arrival Delays affect the Cancellation?**



#### **Links:**

[https://public.tableau.com/app/profile/ahmed.mohamed4731/viz/Question3\\_16652629537880/Sheet5?publish=yes](https://public.tableau.com/app/profile/ahmed.mohamed4731/viz/Question3_16652629537880/Sheet5?publish=yes)

#### **Summary:**

As it is clear from the figure that there is a positive relationship between (Departure & Arrival Delays) and the cancellation of flights, as the greater the lost time, whether arriving late or delaying in takeoff, the greater the number of canceled flights.

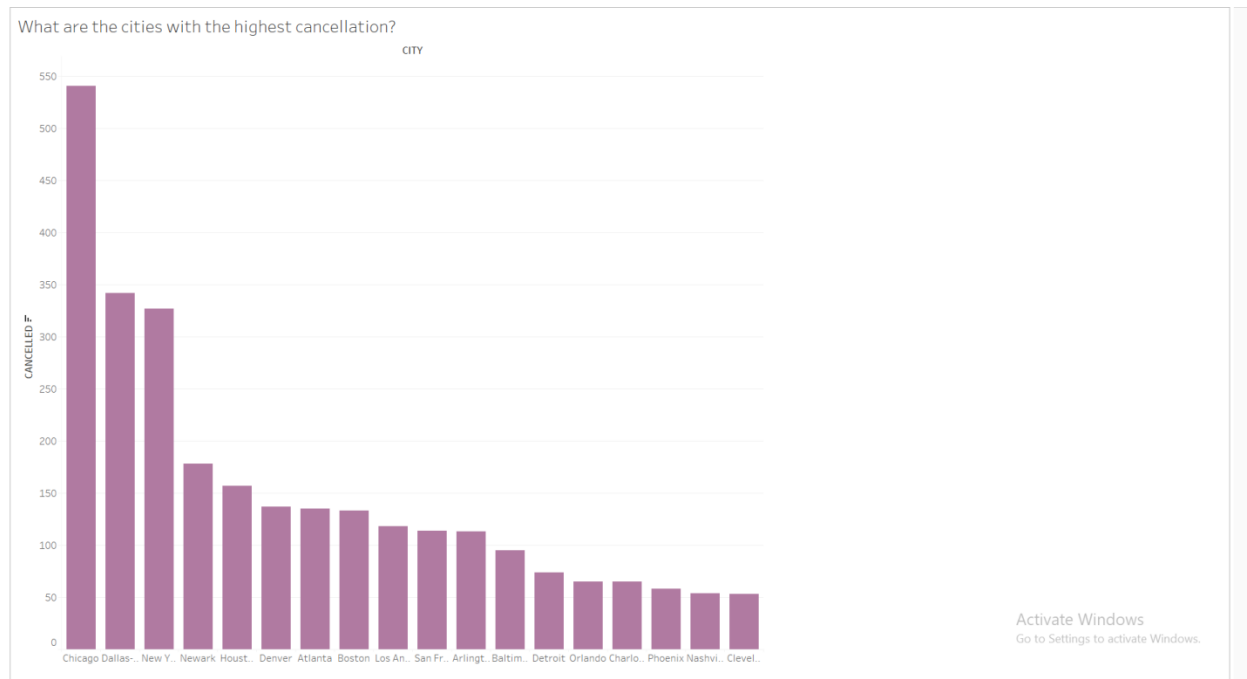
#### **Design:**

- I used the scatter plot because it is the best way to show the relationship between two variables
- I used a filter for airlines
- The size of the circle in the figure depended on the number of canceled flights. The higher the number, the larger the circle

#### **Resources:**

- <https://www.kaggle.com/usdot/flight-delays/data>

### Question 4: What are the cities with the highest cancellation?



### Links:

[https://public.tableau.com/app/profile/ahmed.mohamed4731/viz/Question4\\_16652634613290/Sheet6?publish=yes](https://public.tableau.com/app/profile/ahmed.mohamed4731/viz/Question4_16652634613290/Sheet6?publish=yes)

### Summary:

The previous figure shows the most 18 cities in the United States of America that have had flight cancellations in 2015, and as shown, the city of Chicago is the first with about 541 cancellations, followed by the city of Dallas-fort worth with 342 cancellations, and then New York with about 327 cancellations.

### Design:

- The bar chart is used here because it is the most appropriate visualization for describing categorical data
- I used colors away from the colors related to color blindness to suit all users
- I used the filter on the cancellation column to choose the top 18 cities that canceled flights

### Resources:

- <https://www.kaggle.com/usdot/flight-delays/data>