Flight Delays and Cancellation

- **Links**

Book 1:
https://public.tableau.com/views/Book1_16519947846680/Dashboard2?:language=en-US&:display_count=n&:origin=viz_share_link

Book 2:

https://public.tableau.com/views/Book2_16520800623210/CancelledFlightsDashboards?:language=en-US&:display_count=n&:origin=viz_share_link

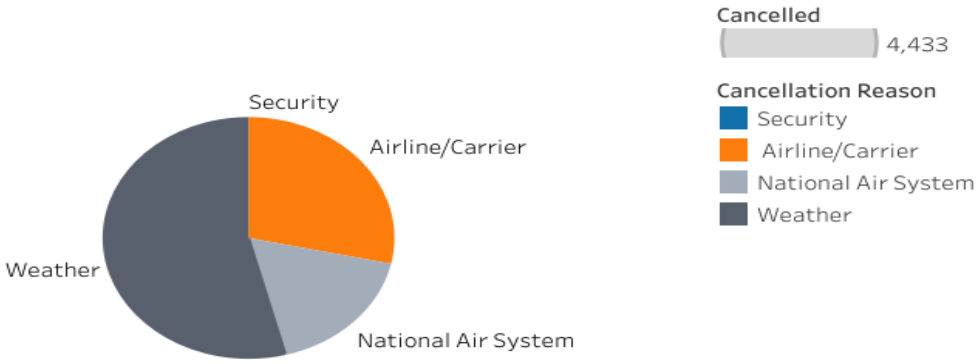
Book 3

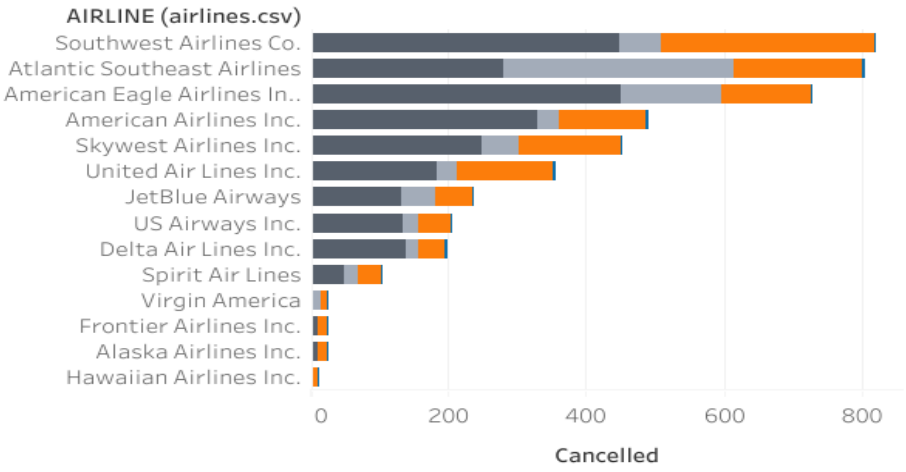
https://public.tableau.com/views/Book3_16520789872020/DelayMonthlyDistribution?:language=en-US&:display_count=n&:origin=viz_share_link

- **Summary**

Book 1

This Book helps us to answer important questions about airlines and their most likely reason of cancellation such as;





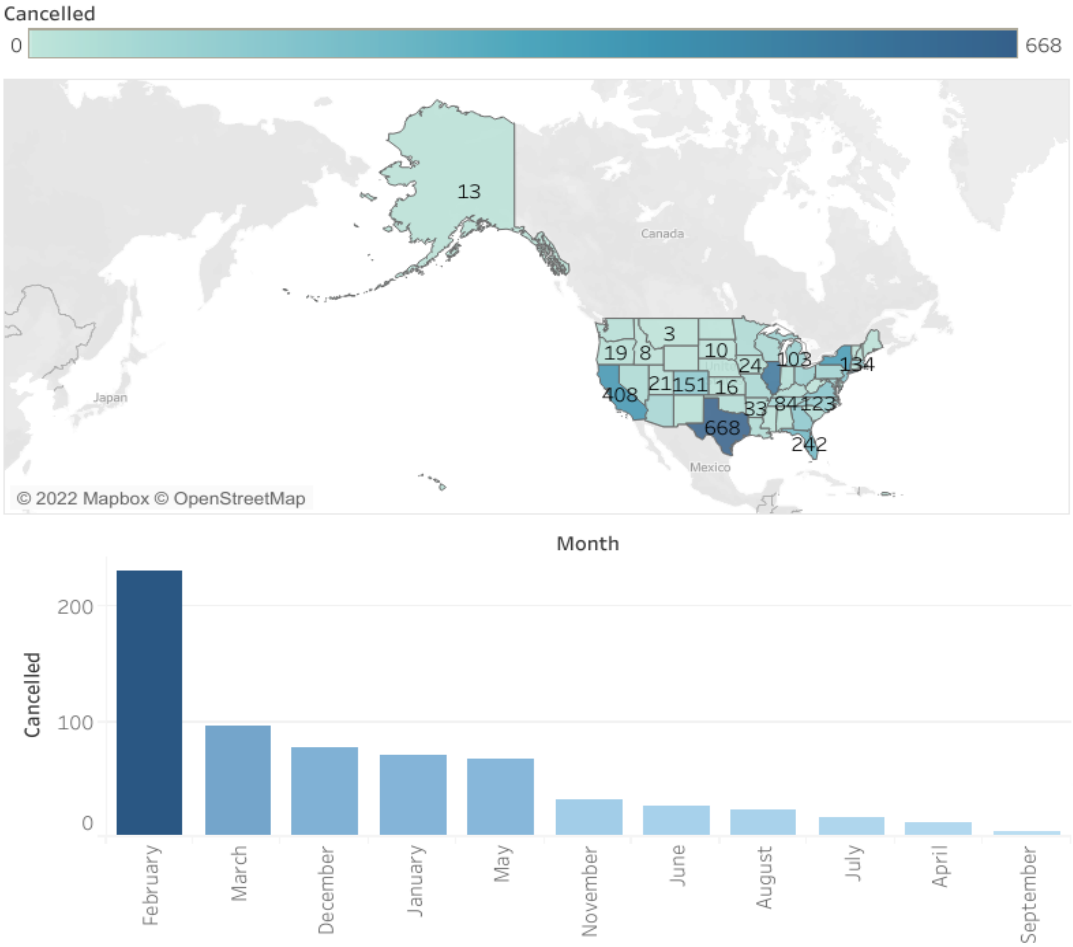
Q1:What are the different reasons of cancellation relatively to each other?

Q2:what are the top air lines that cancelled due to the each reason?

A1:The Pie chart shows that the most likely reason is ***weather*** as it caused the cancellation of ***2,397*** flights , secondly is ***Airline / Carrier*** with **1,260** cancellations , thirdly **is** **National Air System** with **776** and finally NO cancellations had happened due to **Security** manner .

A2: According to the bar chart below, the top airline that most likely to cancel due to ***weather*** conditions is ; ***American Eagle*** . The top airline that would cancel flights due to ***Airline / Carrier*** is; ***Southwest Airlines Co*** .The top airline that would cancel due to **National Air System** is ; ***Atlantic Southeast Airlines*** .

Book 2



It shows the states in USA with highest and lowest numbers of cancelled flights.

Q1: What are the states with highest and lowest cancellations around the year?

Q2: Where cancellation hits the peak in each month?

A1: The Map shows the state with highest cancellation is ***TX*** (***Taxes***) with **668** cancellations and the state with lowest cancellation is ***MT*** (***Montana***) with **3** cancellations around the year.

A2: the cancellation reaches its peak in ***Taxes*** with ***152*** cancellations and ***Illinois*** with ***113*** cancellations in ***February***.

New York with ***77*** cancellations and ***Illinois*** with ***78*** in ***January***.

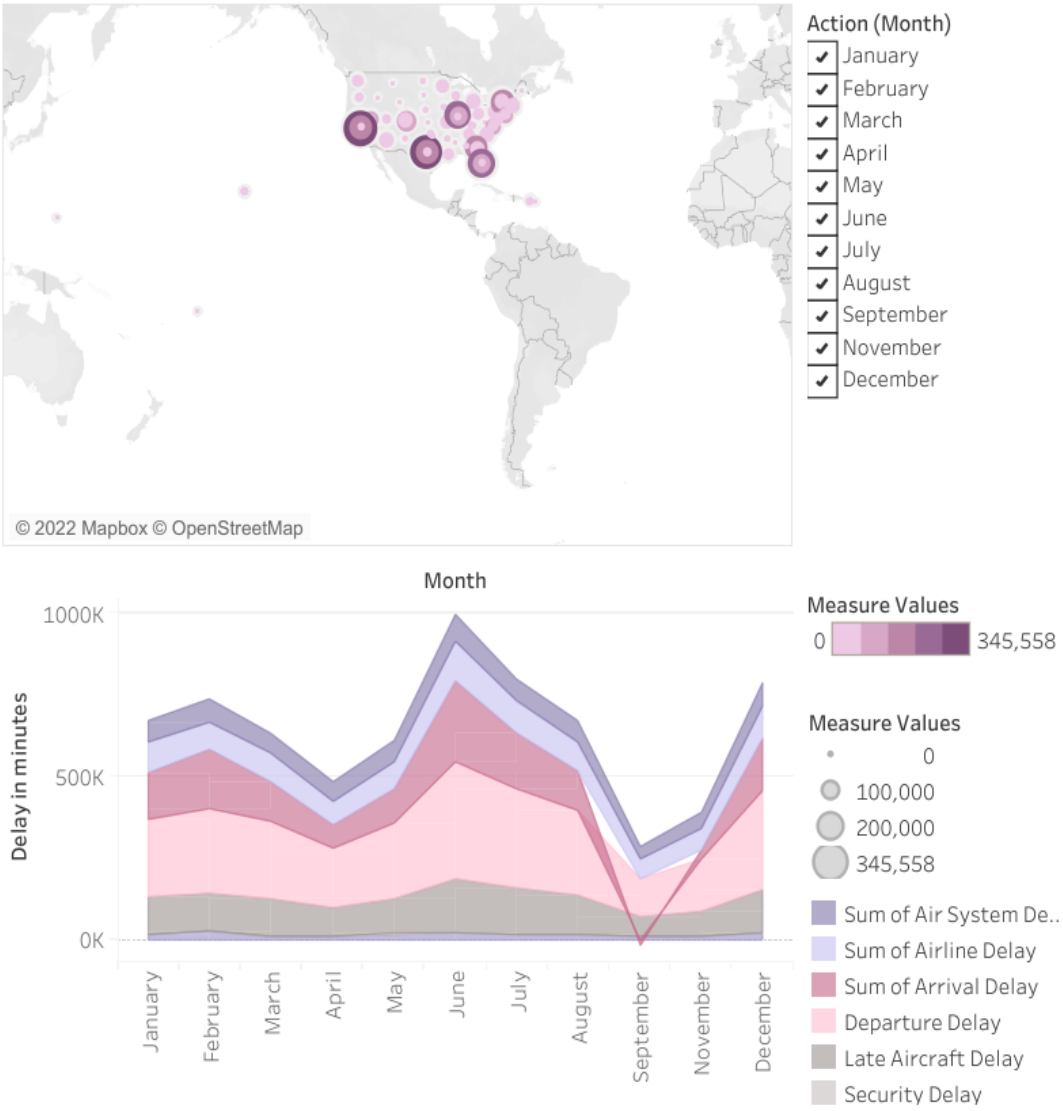
California with ***45*** cancellations and ***Illinois*** with ***38*** in ***August.*** we can conclude that the states with highest number of cancelled flights around the year are ***Taxes***, ***Illinois***, and ***California*** .

Book 3

This dashboard shows the total delays in every month across the states, it helps us answer questions such as;

Q1: Which states have the most and least total delays?

Q2: How the delays are like across months of 2015 in each state?



A1: ***Texas*** and ***California*** are the states with the highest total delays.

A2: Most of the delays follow the delay trend except for total ***arrival delay***, as in ***September*** it's remarkably decreased by negative which means the there where plans arrived sooner than they should be in **Gorgia**, **Illinois**, and **Colorado** states.

It also shows that **departure delays** take a lot of time unlike Weather delays and **air system delays**.

All the 7 different kinds of delay hit their peak in ***June*** and the bottom in ***September***

- **Design**

Book 1

I used the ***pie chart*** to see each reason of cancellation as a part of whole.

used the ***staked bars*** to show different air lines and their common reason they would cancel their flights due to.

Then put them together in an interactive dashboard.

Book 2

I used the ***shaded map*** to show where the most and least cancellations are, and I also labelled the total cancelled flight on each state to make it more visible and couldn't done it better without the map.

used a ***bar chart*** to see the highest and lowest cancellations according to each month in 2015 as they are categorical variables.

Book 3

I also used a ***symbol map*** and marked the measured delays by their size and colour on the map to show which states with longest and shortest delays.

And used the ***area chart*** to display the period of each delay type by their area in each month, and them put them together in a dashboard to make them interactively insightful.

Note

the colour palettes work for colour blindness that’s why I didn’t use red-green

- **Resources**
  N/A