Building a Data DashBoard Project
Flight Delays and Cancellations

DashBoard 1

Question Asked

Which airlines or airports have the worst delays?

Link

[Dashboard 1 | Tableau Public](https://public.tableau.com/app/profile/moustafa.darwish/viz/Dashboard1_16498179032880/Dashboard3?publish=yes)

https://public.tableau.com/app/profile/moustafa.darwish/viz/Dashboard1_16498179032880/Dashboard3?publish=yes

Summary

This dashboard shows the states, airport and airline with most and least delayed and on-time trips.

It's noticed that ATL airline is the one with the most delayed flights and also the most airlines that has on-time trips and this is because it has the largest number of trips overall.

Design

To visualise the spots with high and low numbers I decided to add 2 maps which show the number of delayed trips and on-time trips for each origin airport. Moreover, the bars chart on the right shows the same numbers as bars.

On the other hand, the horizontal bar chart below the map shows the total number of delayed and on-time trips for each airline for the chosen state.

DashBoard 2

Question Asked

What causes delays for each airline and state ?

Link

[Dashboard 1 | Tableau Public](https://public.tableau.com/app/profile/moustafa.darwish/viz/Dashboard1_16498179032880/Dashboard2?publish=yes)
https://public.tableau.com/app/profile/moustafa.darwish/viz/Dashboard1_16498179032880/Dashboard2?publish=yes

Summary

This dashboard shows the states and airlines with most and least cancelled trips.

It's noticed that WN airline is the one with the most cancelled flights mostly due to airline/carrier issues or due to bad weather. Additionally state Texas is shown to be the most state that had cancelled flights. And overall flights are majorly cancelled due to bad weather followed by airlines and carrier issues and finally due to the national air system.

Design

To visualise the spots with high and low numbers of cancelled flights in each state I created a map which shows the number of cancelled trips according to its origin airport.In addition to having a bar chart below the map that shows the total number of cancelled flights in each airline and shows each reason contribution by colours.

Lastly, having boxes on the bottom left corner to show the overall number of cancelled trips for each reason to further know which reasons lead to most cancelled flights.
On the other hand, the horizontal bar chart below the map shows the total number of delayed and on-time trips for each airline for the chosen state.

DashBoard 2

Question Asked

Are any of the delays related to a specific weekday? And are there any trends throughout the week?

Link

[Dashboard 1 | Tableau Public](https://public.tableau.com/app/profile/moustafa.darwish/viz/Dashboard1_16498179032880/Dashboard4?publish=yes)
https://public.tableau.com/app/profile/moustafa.darwish/viz/Dashboard1_16498179032880/Dashboard4?publish=yes

Summary

This dashboard shows the amount of delays due to three factors which are airline delay, late aircraft delay and weather delay throughout the week days.

It's noticed day 6 of the week is having the least amount of delays overall for the three shown factors followed by day 3, having day 1 with the highest amount of delays due to the three factors.

Design

To visualise the trend of delays throughout the week and whether it's effective or not to study it so I choose 3 factors to compare between them so a multi line graph is chosen to easily spot the trend between the 3 factors over the week days.

Resources

- https://www.youtube.com/watch?v=lT3WJ4PbBow
- https://help.tableau.com/current/pro/desktop/en-us/filtering_global.htm
- https://www.youtube.com/watch?v=Z5j0l3f6GOA
- https://help.tableau.com/current/pro/desktop/en-us/formatting_editaxes.htmhttps://public.tableau.com/app/profile/moustafa.darwish/viz/Dashboard1_16498179032880/Dashboard4?publish=yes