

Flight Delays and Cancellations

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Insight 1: Which Airlines Have the Worst Delays Flights?

<https://public.tableau.com/profile/nancy.al.aswad#!/vizhome/NancyProjectTableauAirlines/worstDelayAirlines00?publish=yes>

From the chart, it appears that Spirit Air Lines having the worst average according to our Measure Values (Weather Delay, Air System Delay, Arrival Delay, Departure Delay, Late Aircraft Delay, Security Delay) with average 84.48.

The airline that has the minimum average Measure Values is Hawaiian Airlines Inc. with average 17.54.

Also we can notice that it might be due to the number of Spirit Air Lines which might be much more than Hawaiian Airlines Inc.

The filter:

Measure Names, it will be useful if we would like to looking for a specific reason in our Measure Values for delaying flights.

States Air Line, this filter will help us to looking for a specific Air Line and make fast comparison to get more information about Air Line delaying flights.

Design:

Stacked Bar Chart, was much suitable for display categorical data **Especially** when we clear the variance of delay Measure Values with color. So we can easier notice the difference for which airlines have the most delayed Measure Values and which one with minimum delayed time.

Insight 2: Which Most Common Reasons Delays Flights?

<https://public.tableau.com/profile/nancy.al.aswad#!/vizhome/NancyProjectTableauAirlines/DelayMostReason00?publish=yes>

From the chart, it appears that Aircraft delay having the highest average which is around 24 **So** if we are in an airport in the USA then our flight could have delayed around 24 min.

Also we can notice that the least delay reason occur will be due to security delay with average delay round 10 seconds.

The filter:

Measure Names, by using this filter here we can select the most reason for delaying flights.

Design:

Simple Bar Chart, for display categorical data Bar chart was the best choice So we can easier notice the difference for which the most Reason coz delayed flight.

Insight 3 - Dashboard:

Where Are the Most Canceled Flights Happened and which Cancellation Reasons Most Impacted On Flights According to Months?

<https://public.tableau.com/profile/nancy.al.aswad#!/vizhome/NancyProjectTableauAirlines/Dashboard1?publish=yes>

This dashboard has two charts, we will try to analyze data that displays various reasons for cancellations and their Most Impacted On Flights According to Months and states, this can help the airport authorities to study the traffic of the flights at different time periods and that can help them with future flight schedules.

- **Where Are the Most Canceled Flights Happened According to State?**

<https://public.tableau.com/profile/nancy.al.aswad#!/vizhome/NancyProjectTableauAirlines/worstCancelAirlines00?publish=yes>

The first insight in dashboard we used map for USA to provide information about number of canceled flights in each state.

From the map, we find that the state Texas has the most canceled flights numbers 661 and state Virginia has the lowest canceled flights numbers 179.

We also can assess this result depending on many reasons, such as numbers of traffic in Texas higher than Virginia or it might be due to the weather conditions in Virginia which is better than Texas.

- **How Each Reason of Cancellation Reasons Impacted On Flights According to Months?**

<https://public.tableau.com/profile/nancy.al.aswad#!/vizhome/NancyProjectTableauAirlines/MostCanceledStatFlights00?publish=yes>

The second chart, we find three groups showing canceled reason with frequency for canceled flights to each month. So depending on these charts we can easily find out these conclusions:

- The most cancelled flights happened in February with highest total frequency 782 canceled flights. The lowest month is Sep with total cancelled flights 29.
- We notice that the most reason for cancelled flights is the Weather and the least cause reason for cancelled flights is Air System. So We can say that traveling in Feb month when you inside the US.

Design:

First chart, we use Map to display geographical data.

Second chart, we use line chart coz it is more clear and easy to trace with eyes.

The filter: For all charts in dashboard you can filter the data by using:

Cancellation Reasons, by using this filter we can select the reason for delaying.

Month, Canceled flights in a specific month(s)

NO. Cancellation, this filter will help us to know frequency for Canceled flights.

Count of Cancelled, this filter will help us to know count for Canceled flights related with state.

Resources: N/A