

# Write-up: Flight Delays Visualization

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Link to Tableau Public workbooks:

Initial Version:

Flight Story 1\_Wanderly:

[https://public.tableau.com/profile/wan.li4381#!/vizhome/FlightStory1\\_Wanderly/Story1?publish=yes](https://public.tableau.com/profile/wan.li4381#!/vizhome/FlightStory1_Wanderly/Story1?publish=yes)

Final Version:

Flight Story 2\_Wanderly:

[https://public.tableau.com/profile/wan.li4381#!/vizhome/FlightStory2\\_Wanderly/Story1?publish=yes](https://public.tableau.com/profile/wan.li4381#!/vizhome/FlightStory2_Wanderly/Story1?publish=yes)

## Summary

The dataset contains information on United State flight delays and performance from 2013 until August, 2017. There are 5 main reasons of delay: air carrier, National Aviation System (NAS), weather, late-arriving aircraft and security. This project shows how percentage of delay changes with time and location and how many delays each reason cause. The airports are grouped according to size and location to see how location and size of airport influence the delays of flights.

## Design

Chart Type: This project mostly uses line plots and map diagrams. The map diagrams show the location factor of airports and can serve as the **interactive** input. The line plots are used to show how different variables change with time and compare these variables. There is also a scatter plot showing the relationship between total flights and percentage of delays.

Visual Encoding: The charts use color and size to highlight the message and separate different groups of variables. After collecting feedback, I use less intense and consistent colors.

Layout: In each story points, there are both map diagrams and line plots. Readers can click on the map to interact with the charts. After collecting feedback, I put all maps diagrams with floating legends at the left side and the other legends at the right side.

## Feedback

Color: The colors are a little too bright and too many.

Legend and Layout: The location and format of legends are sometimes different on different pages. The location of maps are different on different pages. Some of the pages have too many charts on one page.

## Resources

Data downloaded from: [https://www.transtats.bts.gov/OT\\_Delay/OT\\_DelayCause1.asp](https://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp)