

## Insight 1

<https://public.tableau.com/profile/nouran.ahmed4840#!/vizhome/departuredelaybystateandairport/Dashboard1?publish=yes>

**Link:** [departure delay by state and airport - Nouran Ahmed | Tableau Public](#)

### Summary:

- 1) from the dashboard, we can see distribution of departure delays across states and airports ,Texas TX had (27,219) departure delay, California CA (28,430) departure delays ,Florida(18,103),Georgia GA(15,877),Illinois IL(16,384) , NewYork NY(10,758).
- 2) we can determine in these states which airport had largest number of delays ,Hartsfield-Jackson Atlanta International Airport (GA) 15,261, Chicago O'Hare International Airport (IL) 12,301, Dallas/Fort Worth International Airport (TX) 10,257, Los Angeles International Airport (CA) 8,512, LaGuardia Airport (Marine Air Terminal) (NY) 4,923, Fort Lauderdale-Hollywood International Airport (FL) 3,726,
- 3) As we can see from the line chart the number of departure delay was constant from the first day of the week to the 5<sup>th</sup> day of the week was about 40000 delays ,then it declined to be 32,640 on the 6<sup>th</sup> day and returned back to be 38,294 on the last day of the week note (1= Monday.....7 =Sunday)

### Design:

- 1) I didn't use different colors in the bar chart to avoid distracting the viewer from the seeing the number of delays for each airport and it was blue so that people who suffer from color blindness can see it clearly
- 2) I also choosed to visualize the distribution of the departure delays by state using maps to make it easier to see the geographic location
- 3) finally when i filtered my visuals using day of week field to see when did the most number of delays occurred I selected a line chart as it is the appropriate choice to visualize and encode date and time variables

## Insight 2

**LINK:**<https://public.tableau.com/profile/nouran.ahmed4840#!/vizhome/numberandreasonsforcancellations/Numberandreasonofcancellationdashboard?publish=yes>

[number and reasons for cancellations - Nouran Ahmed | Tableau Public](#)

### summary:

- 1) Here we can see what is the most frequent reason for flight cancellations and the number of cancellations occurred in each airline in the US.
- 2) It appears that the weather had the largest total percentage of cancellation reason especially in December(14.76%) and November(10.97%) in southwest airline that had largest total number of cancellations while airline carrier had the largest total percentage of cancellation reason in September(12.04%) in american airlines and in August(16.42%) from total reasons in southwest American airlines
- 3) We had total cancellation about 350 for 2015.
- 4) From august to December American airlines and southwest airlines caused the largest number of cancellations .
- 5) From may to July Atlantic southeast airline had the largest number of cancellations,in April sky west ,American eagle and Atlantic southeast airlines had total cancellations (40,43,44) respectively.

## Design :

- 1) I used bar chart and a pie chart to make the dashboard, with colors suitable to all people especially for colorblind people.
- 2) I used table calculation option (percent of total) in the bar chart to see which reason had the largest total percentage of cancellations of all the reasons
- 3) I chose a pie chart to visualize the number of cancellations in each airline to see the proportion of cancellations in each airline from the total cancellations, and I added data labels to the chart to avoid misleadings caused by size of the slices in the chart from different angles
- 4) I filtered my data using the month field and I changed it to string type and I replaced the number encoded for each month with month name just to make it easier for reading

## Insight 3

<https://public.tableau.com/profile/nouran.ahmed4840#!/vizhome/arrivaldelaysdashboard/arrivaldelaydashboard?publish=yes>

Link: [arrival delays dashboard - Nouran Ahmed | Tableau Public](#)

## Summary:

- 1) from here we can see which airline had the largest number of arrival delay occurrence and in which state, it appears that delta airlines had the largest arrival delays count in (GA) Georgia representing 27.57% of all the arrival delays that happened from January to July
- 2) For delta airline in January some flights arrived earlier than the scheduled arrival time by 3,916 minutes, in April flights arrived earlier by 2,797 minutes in all trips and in May the early arrival was by 2,174 minutes, the largest arrival delay from January to July was 17,437 minutes in all trips this was recorded in June
- 3) From August to December, southwest airline had the largest number of arrival delay 3,675 in (CA) California representing 17.20% of all the arrival delays that occurred, the largest amount of time of delay was in December 36,820 minutes, the only month in which the flight arrived earlier than expected arrival time was September by 6,863 minutes

## Design:

- 1) I used a map and a line chart with colors suitable to people who suffer from colorblindness.
- 2) I used the percent of total option to see which state and airline had the largest percentage of arrival delays from the total of all the delays that occurred during specified period.
- 3) I used map to see the distribution of the arrival delays across different states and a line chart to determine which month had the largest amount of arrival delays in minutes and which month had the largest amount of early arrivals in minutes
- 4) I filtered the data using month field recorded by name instead of numbers and I made a single value list for the available airlines in order to compare between one airline and another

**Resources :N/A**