

# Build Data Dashboard Using Tableau

## Business Analytics Nanodegree

### Udacity Final Project

#### Insight 1: Dashboard on Cancelled Flights 2015

##### Tableau Public Link:

<https://public.tableau.com/profile/kiran.shuaib#!/vizhome/cancelledflightsperstate/StateWisecancelledFlightsWithReason>

##### Summary:

In 2015, highest number of cancelled flights (668) are in Texas State with Illinois (563) on second and California (408) third.

Most of the conditions that led to Texas state cancelled flights are due to weather (422). 44 flights were cancelled due to National Air System and 202 were cancelled due to Airline/Carrier.

Day of the week filter can show each day number of flight cancellations in different states in 2015.

##### Design:

Map and Bar charts are used to represent that cancellation in each state, along with reasons of cancellation depicted in bar chart with default colors for simplicity and accessibility color blind palette has been chosen. Separate calculated field REASON OF FLIGHT CALCULATION has been made to illustrate the cancellation reasons from letters to text. Days of the week filter has been added to see which day of the week has highest cancellations.

#### Insight 2: Average Airline Delay in 2015

##### Tableau Public Link:

<https://public.tableau.com/profile/kiran.shuaib#!/vizhome/AverageAirlineDelay2015/Dashboard1>

##### Summary:

Hawaiian Airline has most average line delays of 22.712 minutes and virgin America has the least 13.119 min with Atlantic South East Airline and Delta Airlines 2<sup>nd</sup> and 3<sup>rd</sup> respectively.

##### Design:

Tree map has been used to make the efficient use of space for Average airlines delay. Color blind palette has been chosen along with simple blue stepped colors to identify each group of airlines. Month and State filters has been shown to further dig down the Airlines delay data according to month and State.

### Insight 3: Monthly Arrival Delay in 2015

#### Tableau Public Link:

<https://public.tableau.com/profile/kiran.shuaib#!/vizhome/flightsDelayed2015/FlightsDelayed2015>

#### Summary:

This Dashboard shows which month is suitable for travelling in which state. If we look at the average arrival delay, September has the least average arrival delays. Filter for state has been added to show the state wise distribution of arrival delay per month. To show the city airports in each state with corresponding arrival delay, another bar chart has been added. MQT destination airport in Marquette city has highest arrival delays. We can also look at specific state's arrival delays in 2015 according to city and destination airport by using the state filter.

#### Design:

Line chart has been used to show the trend across different months in 2015 in arrival delays. Calculated field "Month Name" has been added to convert the month number to its name. Filter for state has been added to see the state wise delays in all the months. Destination Airport, city Hierarchy has been made to show the destination Airport along with corresponding city.

#### RESOURCES:

- Tableau documentation:  
<https://www.tableau.com/support/help>
- Books:
  1. Visual data Storytelling with Tableau by *Lindy Ryan*
  2. Storytelling with data by *Cole Nussbaumer Knaflic*