

Insight 1

Link:

https://public.tableau.com/views/UdactiyTableauProjectFile_v7/CancelledFlightsByAirline?:embed=y&:display_count=yes

Summary: From this chart, we can see each airline's percentage of cancelled flights. Out of all the flight data American Eagle Airlines has the highest percentage of cancelled flights (5.1%). Even when filtering by Day of the Week American Eagle Airlines still holds the highest percent of cancelled flights. When looking at all the flight data for the lowest percentage of cancelled flights, Hawaiian Airlines has the lowest percentage of cancelled flights (0.2%). However when using the Day of the Week filter, we can see that depending on the day of the week different airlines will have the lowest percentage of cancellations.

Design: I chose to use a bar chart since I felt it was the best visual to show the difference in cancellation percentages between the airlines. In order to get cancellation percentages by airlines, I created a Calculated Field that too the sum of cancelled flights divided by the total count of flights. I used day of the week filter to see if different days of the week had an effect on cancellations. I did not feel the need to add more colors as it would not have provided any value to the visual and would have been distracting.

Resources: N/A

Insight 2

Link:

https://public.tableau.com/views/UdactiyTableauProjectFile_v7/Avg_DelaybyDayoftheWeek?:embed=y&:display_count=yes

Summary: From this chart, we can see the average arrival delay in minutes and average departure delay in minutes by day of the week for all airlines. It appears that the first day of the week has the highest average delay for both arrival and departure. As the week progresses the average delay for arrival and departure have a downward trend with a slight spikes on the 4th day and the last day of the week.

Design: I chose to use a stacked line chart for this visualization as there is an element of time so showing a continuous line made the most sense as it is easy to see the day-to-day changes. Also there are 2 sets of data being represented (avg. arrival delay and avg. departure delay) so having 2 separate lines allows for both data sets to be represented. I chose to use orange and blue to help distinguish the different lines and they are also good colors to help with color-blinded audiences. Additionally, I added a filter for the airlines so the reader can look at specific airline delay data. The line chart is helpful to show the trend at a higher level, but in order to get more detail I added a tooltip to show the exact data point for the each day of the week.

Resources: N/A

Insight 3

Link:

https://public.tableau.com/views/UdactiyTableauProjectFile_v7/CausesforDelayDashboard?:embed=y&:display_count=yes&publish=yes

Summary: Here is a dashboard that has a bar chart that shows what portion of the flight causes the most delays (in minutes) and a map that show which airports have the most delays caused by Late Aircraft, which as we can tell from the bar chart above it is the reason for the most amount of delays. "Late Aircraft Delay" caused the most flight delays which accounted for over 1.2M minutes of delay. "Security Delay" caused the least amount of delay with only 4.7K minutes of delay. From the map it appears that the 4 airports with the darkest amount of blue shading which denotes the highest amount of delays caused by Late Aircraft, also happen to be the 4 major large airports in the US - Chicago (98,806), New York (60,720), Los Angeles (51,043), and San Francisco (44,006). This is most likely due to these airports having higher traffic than others.

Design: I used a bar chart to show the total amount of minutes caused by each delay reason because the size of the bars clearly shows the difference between each reason. I chose to use only 1 color for the bar chart as using multiple colors would just create distractions. Since the Late Aircraft Delay caused the most amount of delay, I decided to use a map to show which airports incurred the most delay caused by late aircrafts. Each point on the map represents an airport and the shading is used to show which airports had the most delay. This allows the reader to easily hover over any airport of interest to see the amount of delay caused by Late Aircraft. The darker points had the highest while the lighter points had the least. I added a tooltip that shows the amount of total minutes delayed, the total amount of minutes delayed by Late Aircraft only and Late Aircraft delay by percentage of the total delay. Lastly, I added a filter for the airline so that the reader can look at specific airlines while using the visual.

Resources: N/A