Insight #1:

Which airline has the highest number of delayed flights?

Tableau Worksheet:

https://public.tableau.com/views/TotalDelayedFlightsByAirline/TotalDelayedFlights?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Summary:

The insight focused on identifying the airline with the highest number of delayed flights. The analysis revealed that Southwest Airlines (WN) holds this distinction, experiencing a total of 27,323 delayed flights. To further explore and understand the data, filters and tooltips were strategically employed.

Total Delayed Flights by Airline:
Airline Code: WN
Airline: Southwest Co.
Delayed Flights: 27,323

Design Comments:

The "Total Delayed Flights by Airline" worksheet incorporates filters for Month, Airline Code, and Airline. The tooltip functionality provides specific details when hovering over data points, offering clarity by displaying key information such as the Airline Code (WN), Airline Name (Southwest Airline), and the corresponding count of Delayed Flights (27,323). These interactive features enhance the user's ability to delve into the dataset.

Resources:

N/A

Insight #2:

How does the number of delayed flights vary on a monthly basis, and are there specific months that consistently experience higher or lower delays in comparison to others?

Tableau Worksheet:

https://public.tableau.com/views/MonthlyFlightDelaysOverview/MonthlyFlightDelaysOverview?:language=en-US&:display_count=n&:origin=viz_share_link

Summary:

Southwest Airline stands out prominently in this regard, experiencing a substantial number of delayed flights, specifically 3,106, during the month of July. In contrast, all other airlines collectively have delays below 1,538.

Monthly Flight Delays Overview:
Month: July
Airline: Southwest Co.
Delayed Flights: 27,323

Design Comments:

The choice of a line chart for the "Monthly Flight Delay" worksheet was deliberate due to its ability to showcase trends and variations over time effectively. Line charts are particularly suitable for visualizing sequential data. While bar charts are useful for comparing individual data points, they might not capture the temporal aspect as well as a line chart.

Resources:

 N/A

Insight #3 :

Which month experienced the highest peak in departure delays?

Tableau Worksheet:

https://public.tableau.com/views/MonthlyDepartureDelayOverview/MonthlyDepartureDelayOverview?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Summary:

After analyzing the line chart, it is evident that the month of July experienced a significant spike in departure delays, totaling 93,003 minutes. Color encoding for different airlines highlighted Southwestern Airlines (WN) as a major contributor to this surge. Further exploration using interactive filters revealed a potential correlation with specific factors, such as high passenger demand or adverse weather conditions. These findings underscore the need for targeted strategies to address factors influencing departure delays, particularly during peak months like July.

Monthly Departure Delay Overview:
Month: July
Departure Delay: 93,003
Airline Code: WN
Airline: Southwestern Airlines

Design Comments:

The color marks are dedicated to differentiating between airlines. Each distinct color represents a specific airline, allowing for a quick visual identification of the contribution of each airline to departure delays. The inclusion of filters for Month, Airline, and Airport allows for dynamic exploration of the data. Users can selectively view and analyze departure delays based on specific time frames, airlines, or airports.

Resources:

N/A

Insight #4 :

Which airport has the highest number of delayed flights?

Tableau Dashboard:

https://public.tableau.com/views/FlightDelayOverview/FlightDelayOverview?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Summary:

The analysis revealed a significant insight into flight delays, focusing on the question of which airport experiences the highest number of delayed flights. The findings point to Hartsfield-Jackson International Airport, with a total of 6,790 delayed flights.

Geographical Distribution of Delays by Airline:
Airport Code: ATL
Airport: Hartsfield-Jackson International Airport
Delayed Flights: 6,790

Design Comments:

This data is visually represented through a Map chart, where the airport is labeled as Hartsfield, identified by the airport code ATL. The analysis is further enhanced by the inclusion of filters for Month, Airline, and Airport, providing a dynamic view of delayed flights based on various parameters. The tooltip feature complements the visualization by offering specific details, such as the airport code (ATL), the airport name (Hartsfield-Jackson International Airport), and the exact count of delayed flights (6,790).

Resources:

N/A