Insight 1

The first display shows that **Sawyer International Airport** has the longest average arrival delay time at **83.42 minutes**, while **Guam International Airport** has the longest average exit delay of **63.11 minutes**.

According to the month, **June** has the longest average wait time, at **24 minutes**, and **September** has the shortest, at **4.05 minutes**.

With **59437** flights and an average delay time of **15.95 minutes**, **Southwest Airlines** made the most journeys. **Virgin America** made the fewest trips, with **2978** trips and an average delay time of **15.92 minutes**.

Spirit Airlines, with an average delay of **33.06 minutes**, has the highest average delay, while **Alaska Airlines**, with an average delay of **1.41 minutes**, has the lowest average delay. (**Average duration of delay: 15.22 minutes**)

Design

Horizontal bar maps are shown in the first and second depictions. Because we are analyzing category numbers, I used bar plots.

We used a scatter plot for the third figure because we are contrasting two quantitive data sets (average delay and number of flights for each airline).

We are searching for a quantifiable variable over time, so I used a line plot for the fourth figure.

First Dashboard:

https://public.tableau.com/views/udacity1_16786253637040/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link

Insight 2

The second display reveals that weather cancellations accounted for **54.07%** of all cancellations, followed by **airline/carrier** with **28.42%** and the **National Air System** with **17.51%.**

The largest cause of the delay was the late arrival of the airplane, followed by airline and airline delays, followed by air system and weather delays, and finally security delays.

The causes of delays can change from month to month and from one terminal to another.

Design

We used a bar plot for the first figure since we were comparing category numbers.

Because we were comparing category values in the second figure and needed to see the percentage of each value, we used a pie chart.

I used a line plot for the third figure because we are trying to find a quantifiable variable that changes over time.
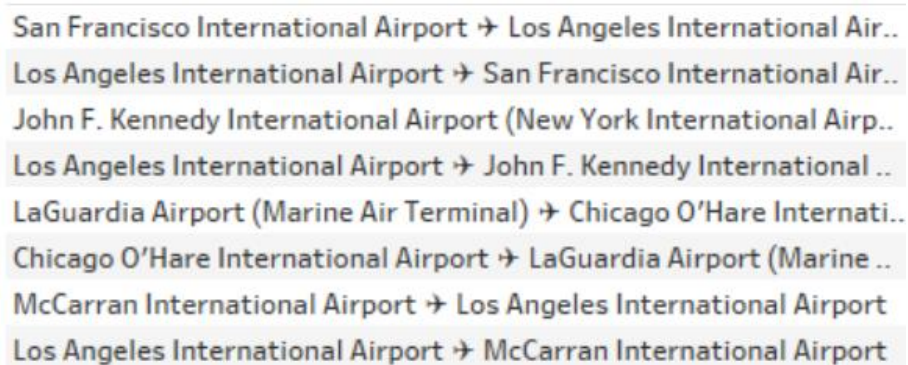
Second Dashboard:

https://public.tableau.com/views/udacity2_16786255962500/Dashboard2?:language=en-US &:display_count=n&:origin=viz_share_link

Insight 3

The third display shows that **Hartsfield-Jackson Atlanta** is the busiest airport, with **18056** flights, while **Minneapolis-Saint Paul** is the least busy, with **5822** flights (that can vary from one month to another)

The most frequent journey, with **776 flights**, was from **San Francisco to Los Angeles**, followed by the second, with **657 flights.** In reality, the first **8 repeated voyages were made from and to the same airports**.

San Francisco International Airport ✈ Los Angeles International Air..
Los Angeles International Airport ✈ San Francisco International Air..
John F. Kennedy International Airport (New York International Airp..
Los Angeles International Airport ✈ John F. Kennedy International ..
LaGuardia Airport (Marine Air Terminal) ✈ Chicago O'Hare Internati..
Chicago O'Hare International Airport ✈ LaGuardia Airport (Marine ..
McCarran International Airport ✈ Los Angeles International Airport
Los Angeles International Airport ✈ McCarran International Airport

With **33,513** aircraft, **CA** had the most flights, while **DE** had the fewest, at just **4**.

Design

We compared regional values (states) using a chart because it is simpler to see on one.

For origin – dest we: Since there are numerous locations to include in the plan and language is simpler to comprehend, we used text instead of graphics.

For the **most crowded airports**, we used a bar chart because we are comparing categorical values.

Third Dashboard:

https://public.tableau.com/views/udacity3_16786261612630/Dashboard4?:language=en-US&:display_count=n&:origin=viz_share_link