

Performance of Carrier Airlines  
(w.r.t flight cancellations)

This visual tells us the performance of Airline Carriers with respect to flight cancellations over the years 1998, 2015, 2016, 2020 and 2021. The column chart below shows that 'American Airlines Inc.' Carrier has highest number of cancelled flights over all the years mentioned. Further drill down into individual years gives a picture of performance of various other airline carriers, The table on the right shows the number of cancelled flights at the Origins by Carrier Name. This visual serves as a record for the airline carriers to analyze and compare the number of cancellations by year and also at which Origin Airport the cancellation occurred and answer questions such as what was the highest number of cancellations at various location and has it been consistent in over different years.

Year

2021

2020

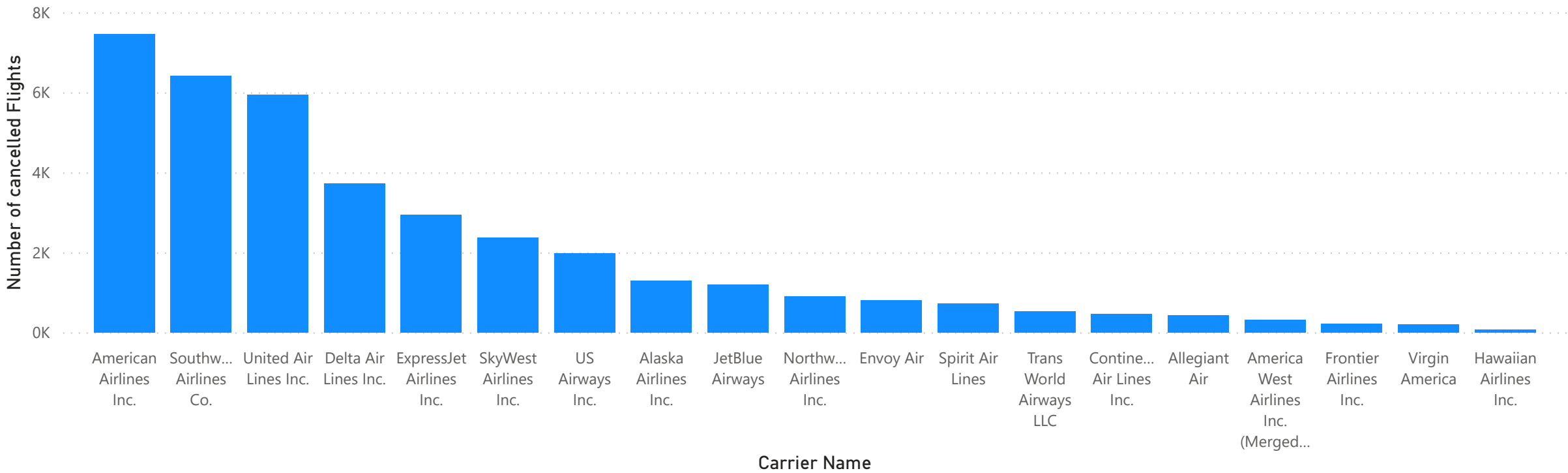
2016

2015

1998

Number of cancelled Flights	Origin Airport	Carrier Name
1508	Dallas/Fort Worth, TX	American Airlines Inc.
957	Chicago, IL	United Air Lines Inc.
819	Charlotte, NC	American Airlines Inc.
693	Baltimore, MD	Southwest Airlines Co.
678	Chicago, IL	Southwest Airlines Co.
631	Atlanta, GA	Delta Air Lines Inc.
580	San Francisco, CA	United Air Lines Inc.
533	Newark, NJ	United Air Lines Inc.
38036		

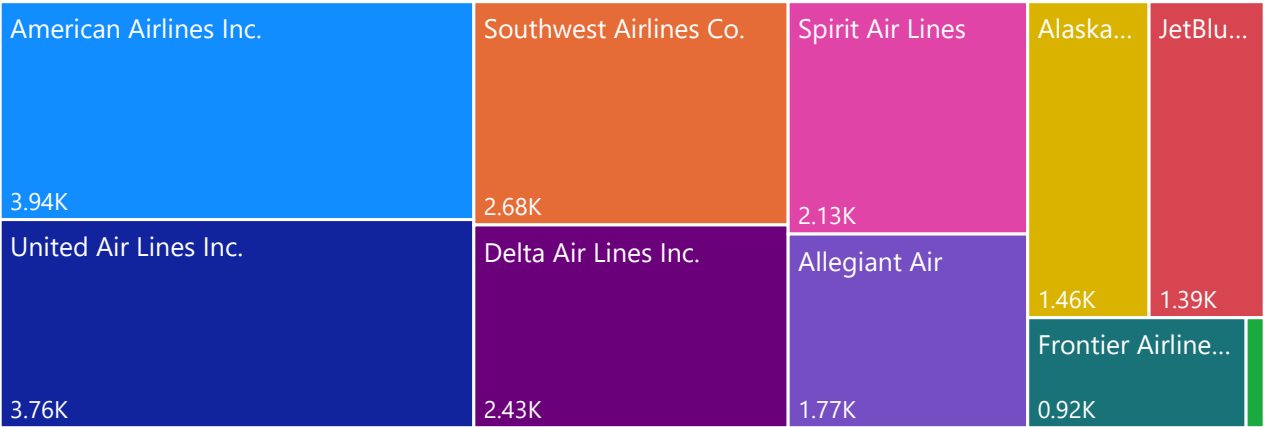
Number of cancelled Flights by Carrier Name



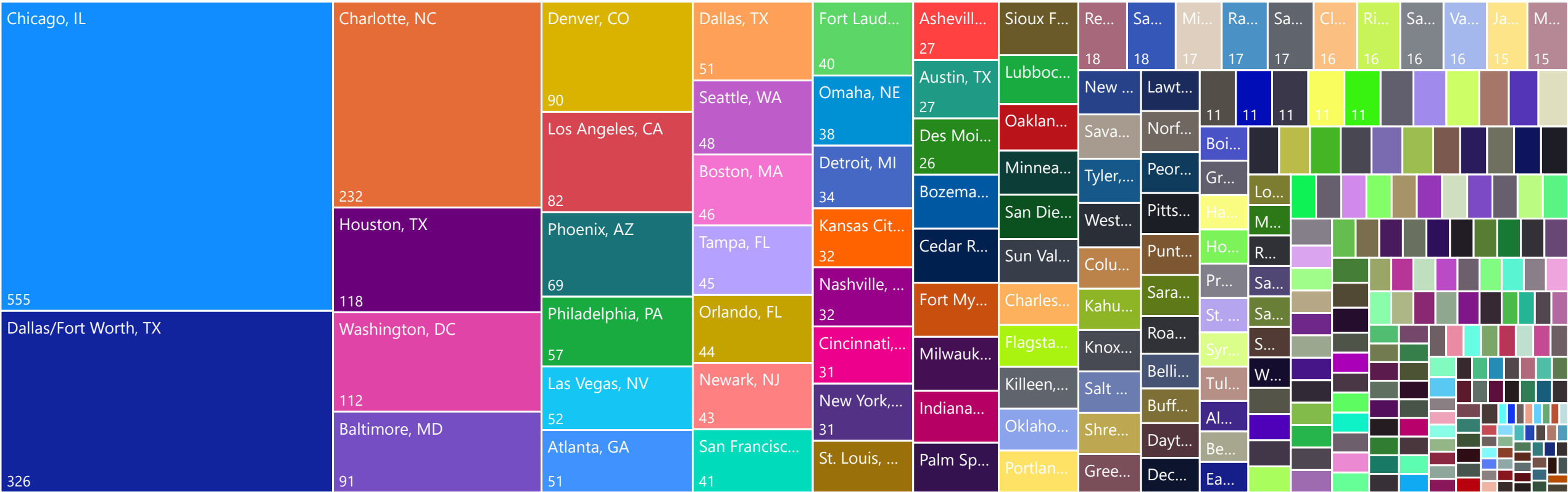
Total Flight Cancellations by Airline Carriers in 2021

Tree maps to show the number of flights cancelled at Origin by Carrier for year 2021  
This give us an overall understanding of which Carrier had highest flight cancellations in the year 2021.  
From the below tree map, we can say that Chicago suffered the highest number of cancelled flights. The tree map on right suggests, American Airlines had the highest no. of cancelled flights followed by United Airlines.  
Furthermore, we can derive more insights by selecting each carrier and hovering over the Origin Airport rectangle to view a breakdown of no. of cancelled flights by respective carrier airline.  
For example, the origin airport 'Chicago, IL' has a total of 555 cancelled flights of which 72 flights belong to 'American Airlines' carrier.

Total Cancellations from Origin by Carrier Name



Number of cancelled Flights per Origin Airport in 2021



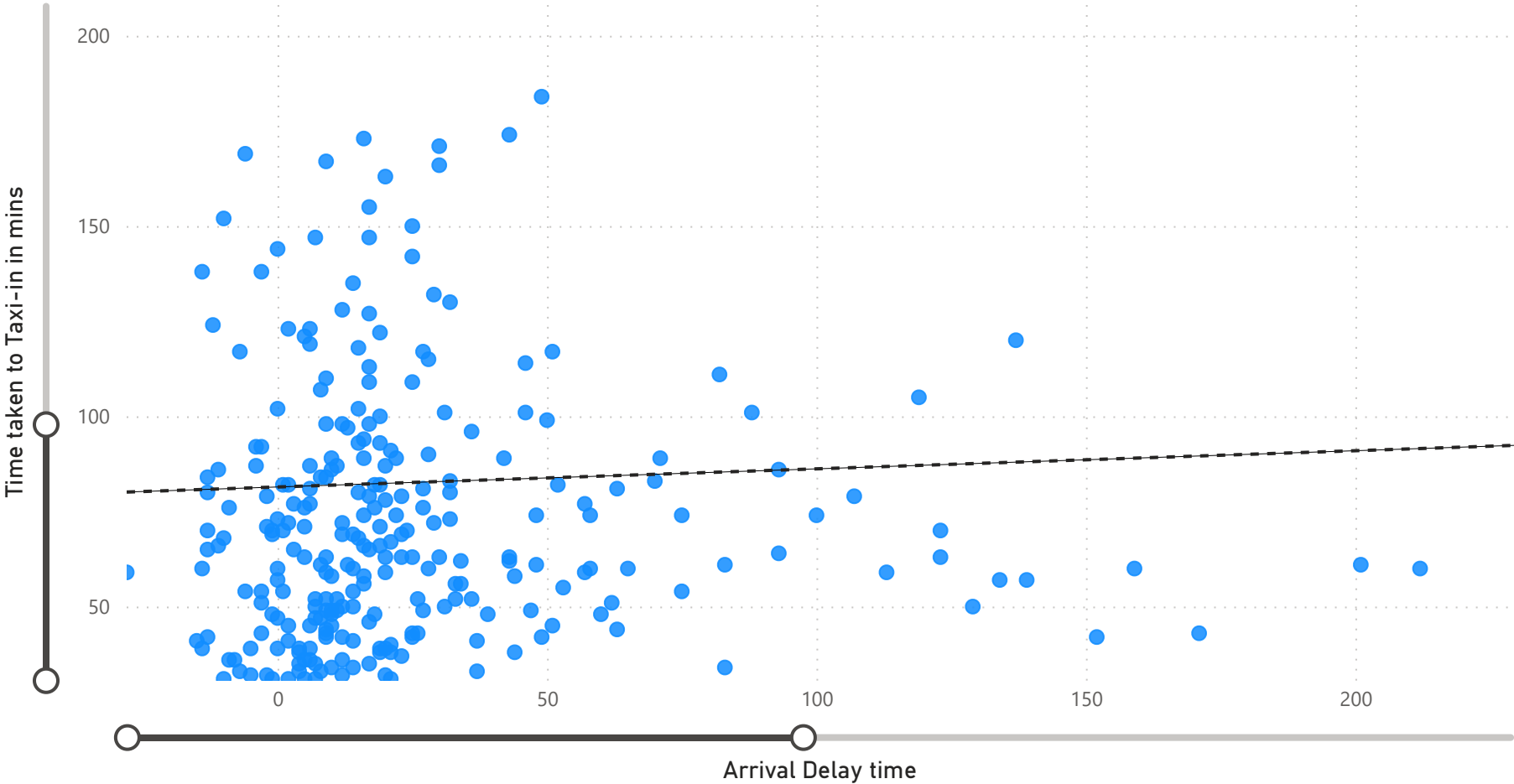
Relationship between Flight Arrival Delays and Time taken to Taxiing

The Visual shows a scatter plot between two numerical metrics - Time taken to Tax-in and Arrival Delay in minutes. It looks clear that these two metrics have a positive relationship.

Taxi time is the amount of time an aircraft spends in movement on the surface of an airport. This visual is focused on *arrival taxi-time (or taxi-in time)* which is the period of time between an aircraft landing on runway and arriving at the terminal gate of the airport.

It suggests that if the arrival has been delayed, the time taken for taxi-in by the airplane is higher.

Arrival Delay time and Time taken to Taxi-in in mins by Destination Airport

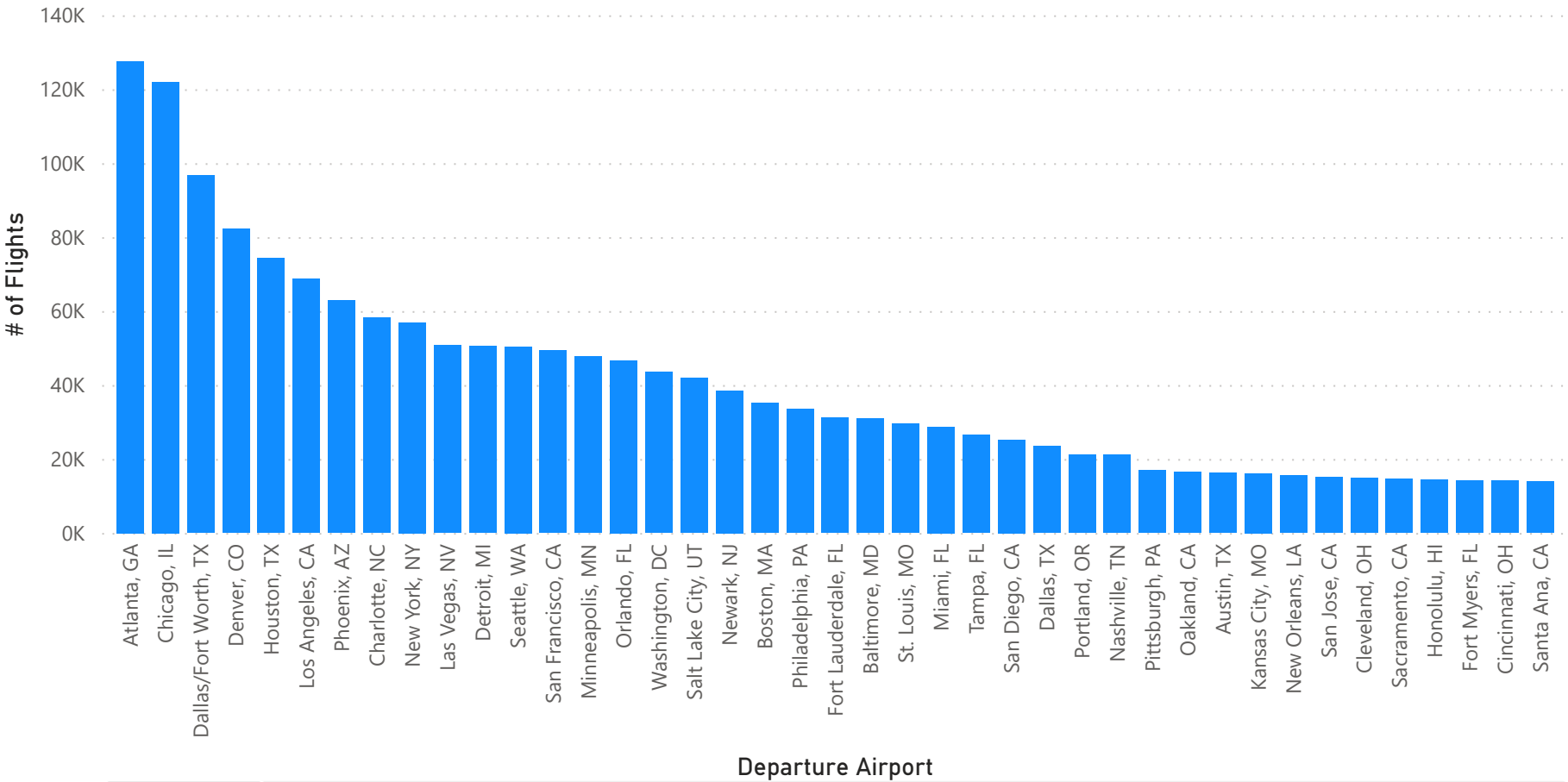


Hancock/Houghton, MI had the highest Arrival Delay time (830) and Cleveland, OH had the highest Time taken to Taxi-in in mins (1233).

The Busiest Airports in USA

This visual gives us an understanding of the busiest airports in the USA for the years 1998, 1999, 2015, 2016, 2020 and 2021. The busiest ones could mean that these Locations could have hubs of operating airlines. When drilled down thru years, one can notice airports at Atlanta, Dallas/FortWorth and Chicago have been the top three busiest locations over the years mentioned. This insight seems pretty accurate as these three locations do in fact are the busiest airports by passenger traffic. This is also true as per the Airports Council International(ACI). Atlanta, houses well over six million people, one of the key reasons why the airport does so well. It occupies a strategic eastern point in the United States, acting as a major entry point for international traffic.

No. of Flights at Airport



Year

1998

1999

2015

2016

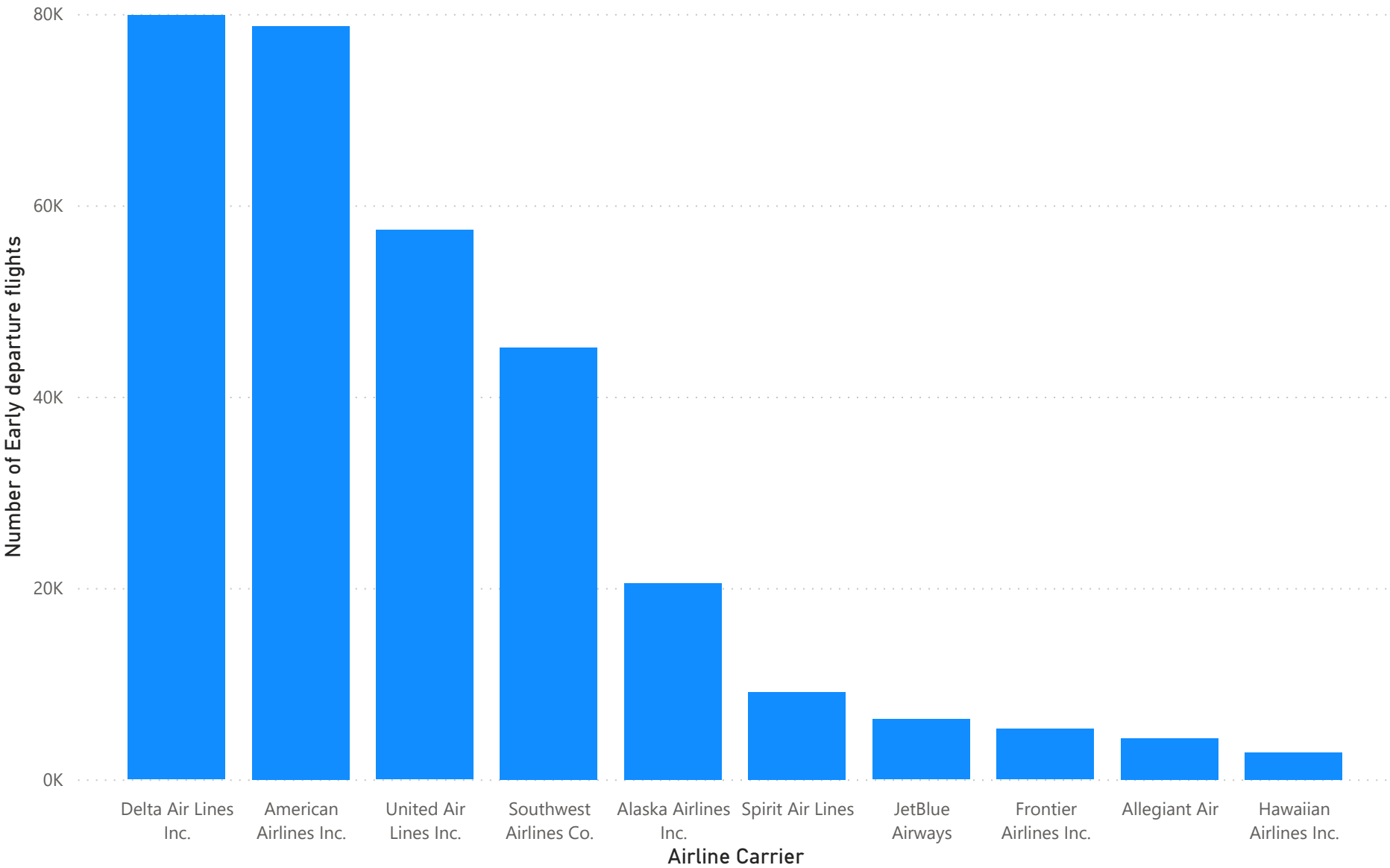
2020

2021



Performance of Airline Carriers by Departure Time

Number of Flights by Airlines that departed earlier than scheduled



Year

- 1998
- 1999
- 2015
- 2020
- 2021

This visual gives us information on number of flights by airline carriers that departed earlier than scheduled time. This metric is particularly useful in knowing the air traffic conditions at particular airport locations as well as an insight into the Carrier's operations performance. The visual has data for over 6 different time periods. It can be seen that Delta Airlines has had high number of flights that flew on time or before followed by Southwest Airlines. This trend has been pretty consistent in over all the time periods of data.



Airlines Delayed due to Weather by 20 min  
Distributed per airline per departure airport and total delays by departure airport

This visual gives us information on all the flights that were delayed by 20 min or more due to weather conditions. This information is distributed per airline per departure airport.

The column chart below gives information of total number of flights delayed at each city by airlines. For instance, the city Albany had a total of 38 flights delayed out of which 12 belonged to American Airlines, 6 to Delta and so forth.



Departure Airport

- ☐ Aberdeen, SD
- ☐ Abilene, TX
- ☐ Adak Island, AK
- ☐ Akron, OH
- ☒ Albany, NY
- ☐ Albuquerque, NM
- ☐ Alexandria, LA
- ☐ Allentown/Bethlehem/Easton, PA

Total delays per Airport and Count of Delayed Flights by Carrier Airlines

