

73M

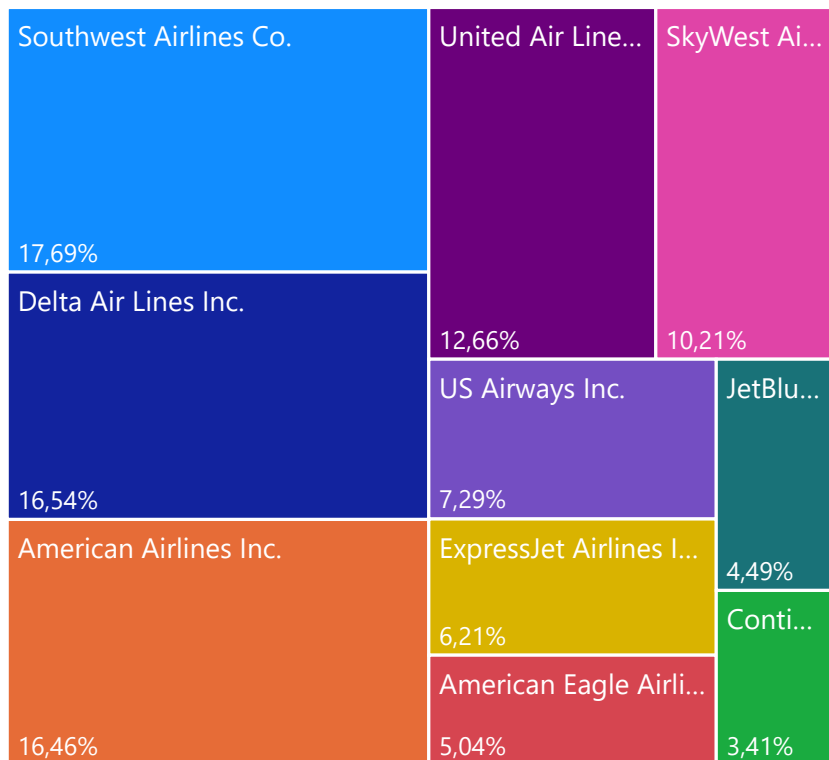
Arrivals

57M

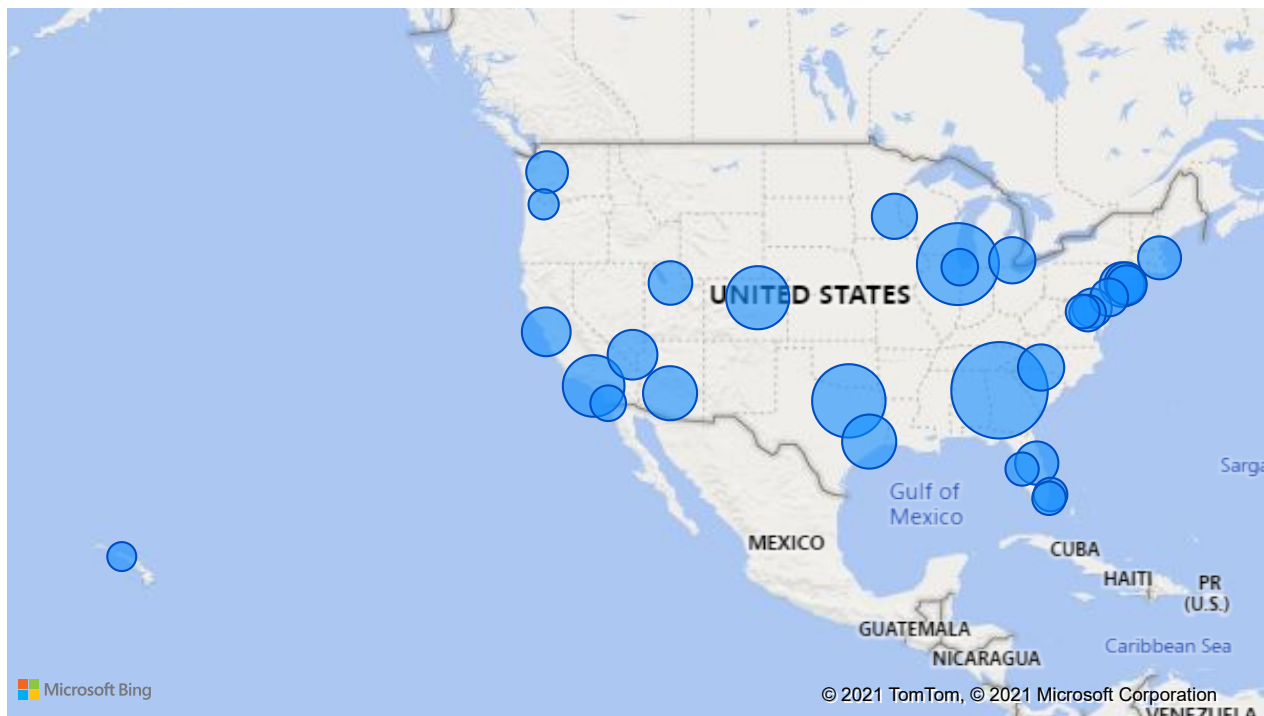
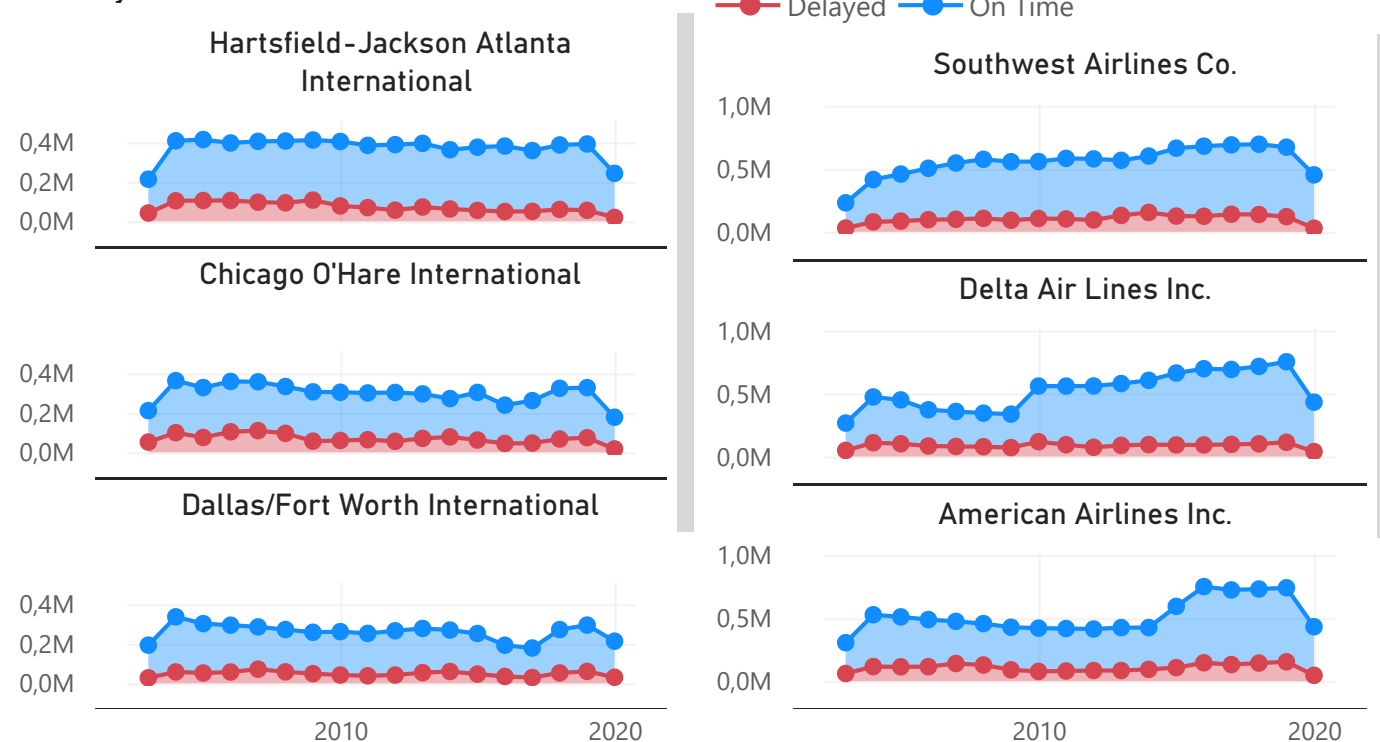
On Time

14M

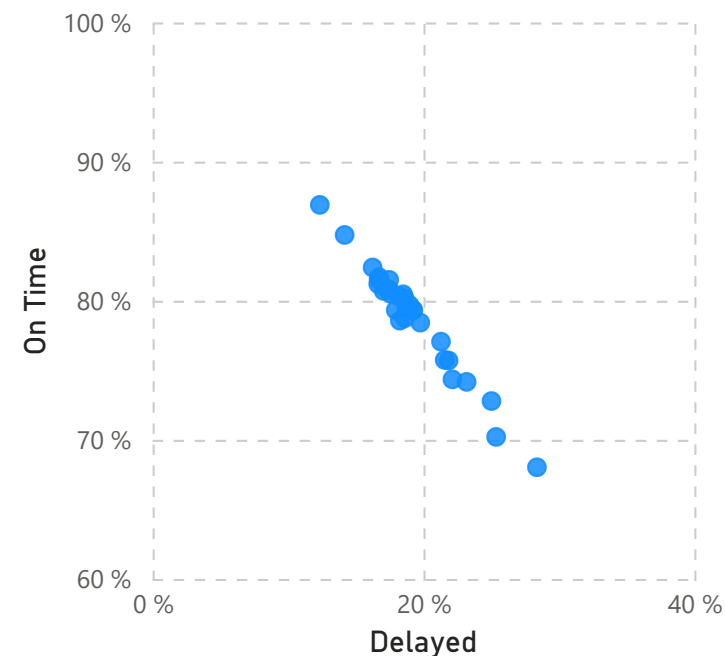
Delayed



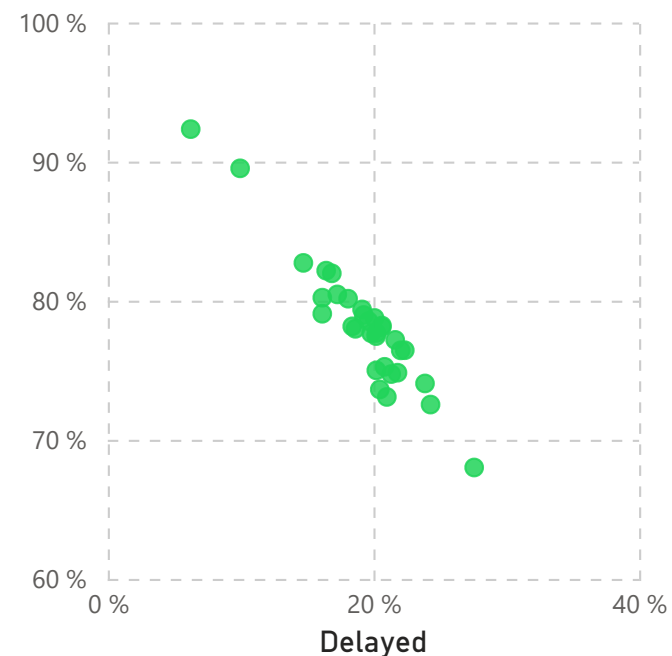
Delayed and On Time Arrivals over Time



Delayed and On Time Arrivals by Airport



Delayed and On Time Arrivals by Carrier

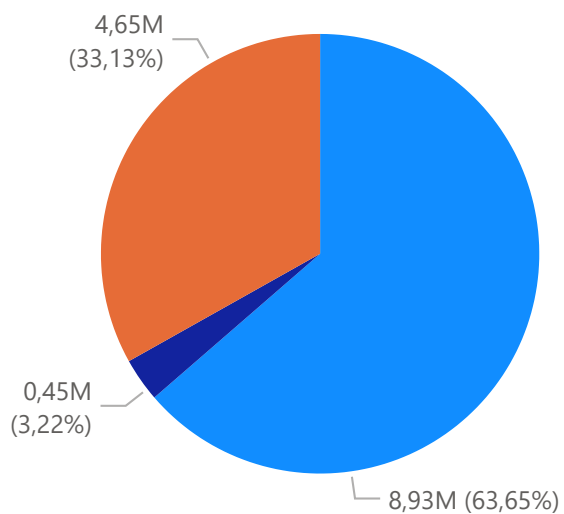
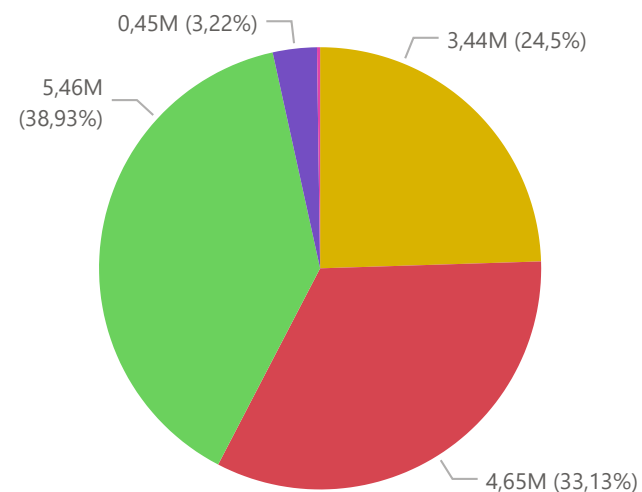


73M

Arrivals

78,62 %
On Time
1,88 %
Cancelled

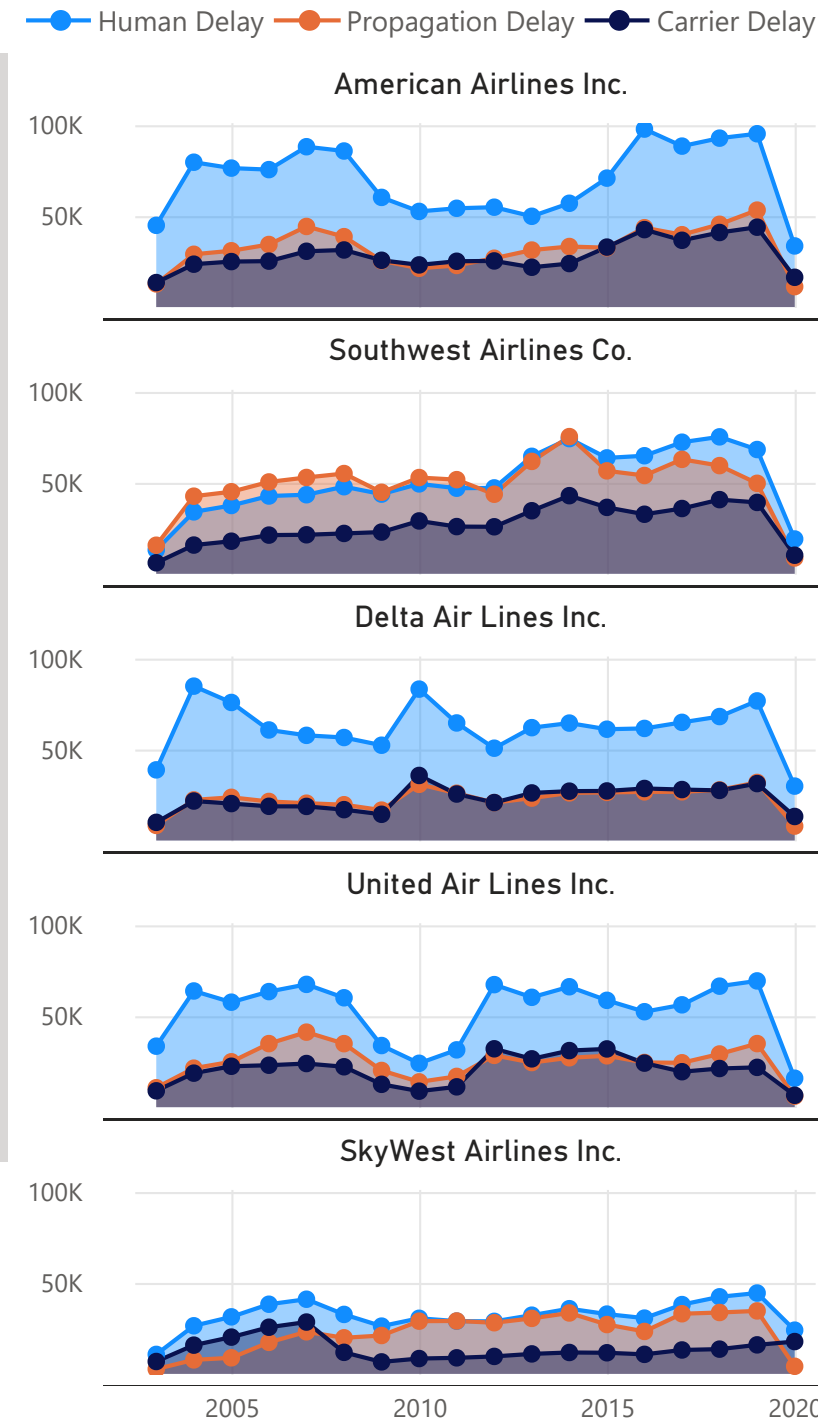
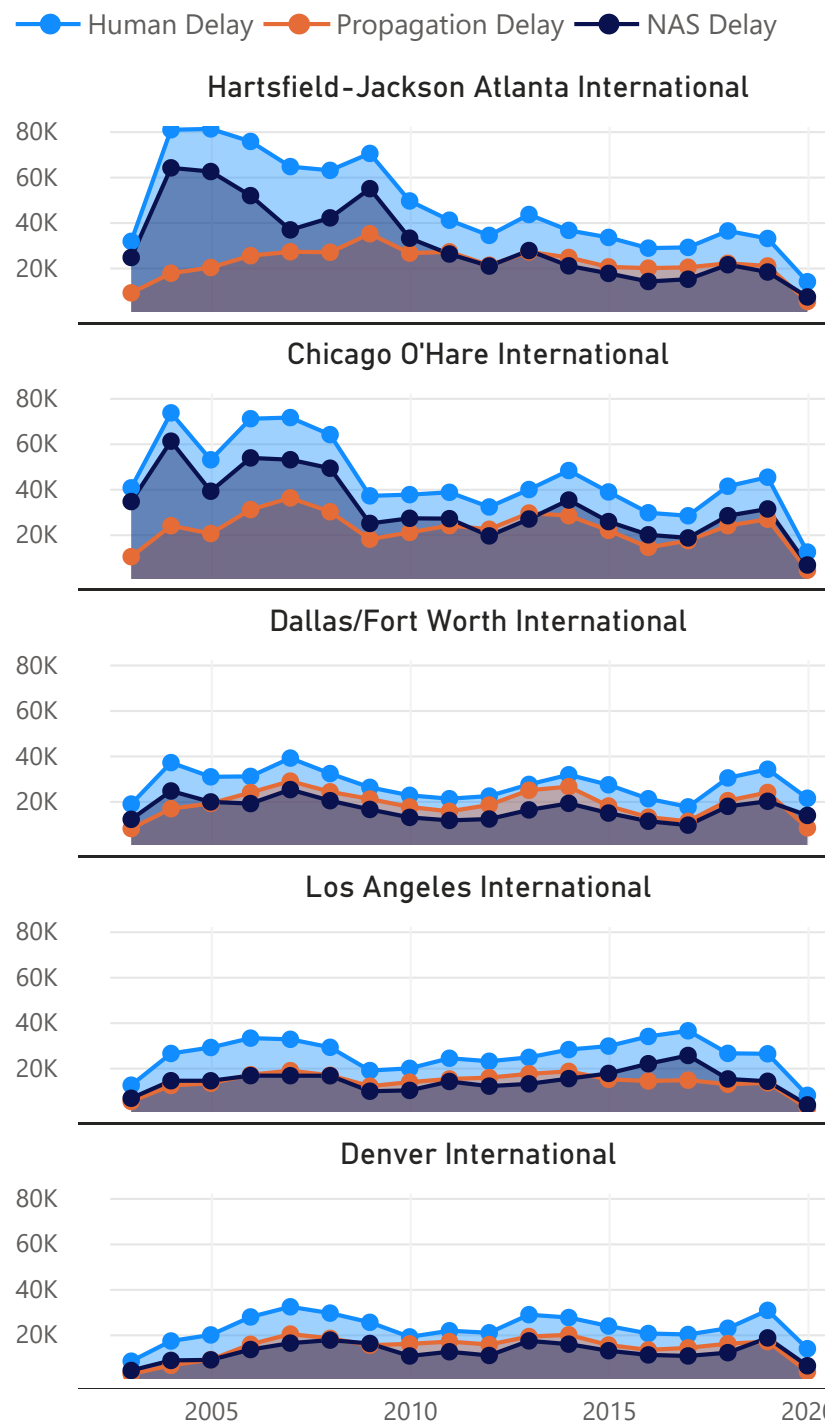
19,27 %
Delayed
0,23 %
Diverted



Carrier
Late Aircraft
NAS
Weather
Security

Human
Non-human
Propagation

Human, Non-human, and Propagation Delays over Time



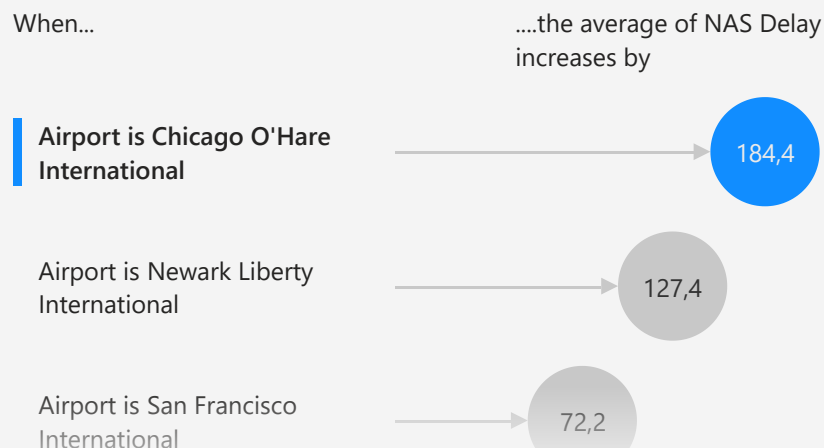
14M 14M
Delayed Flights Delayed Hours

Average Delay in Minutes

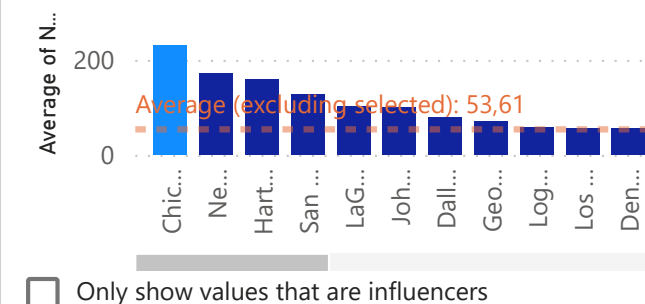
55
due to NAS or the carrier
65
due to late aircraft
86
due to weather

Key influencers

What influences NAS Delay to ?

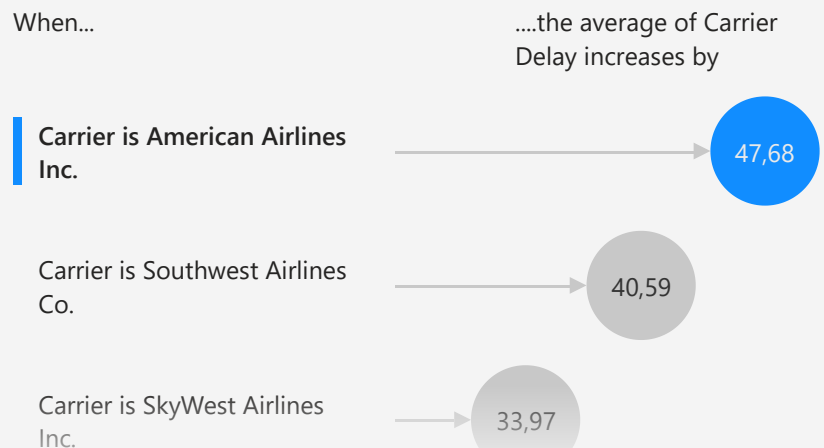


← NAS Delay is more likely to increase when Airport is Chicago O'Hare International than otherwise (on average).

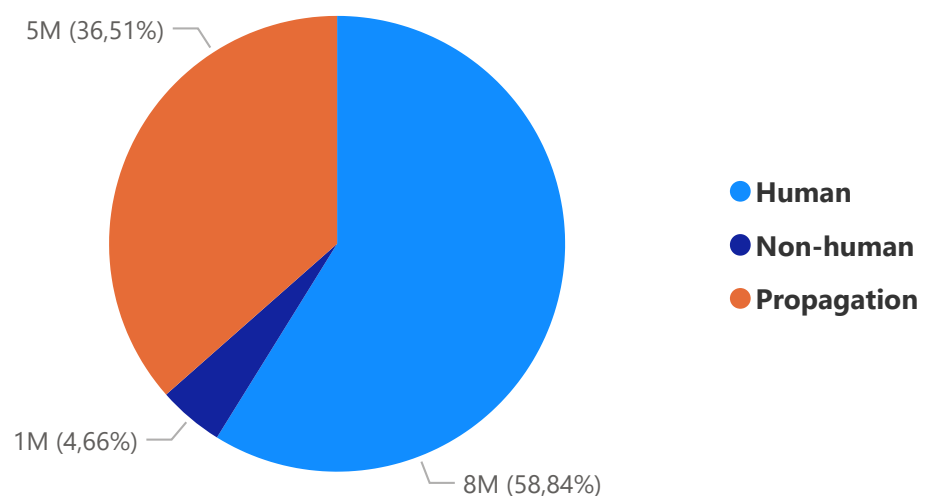
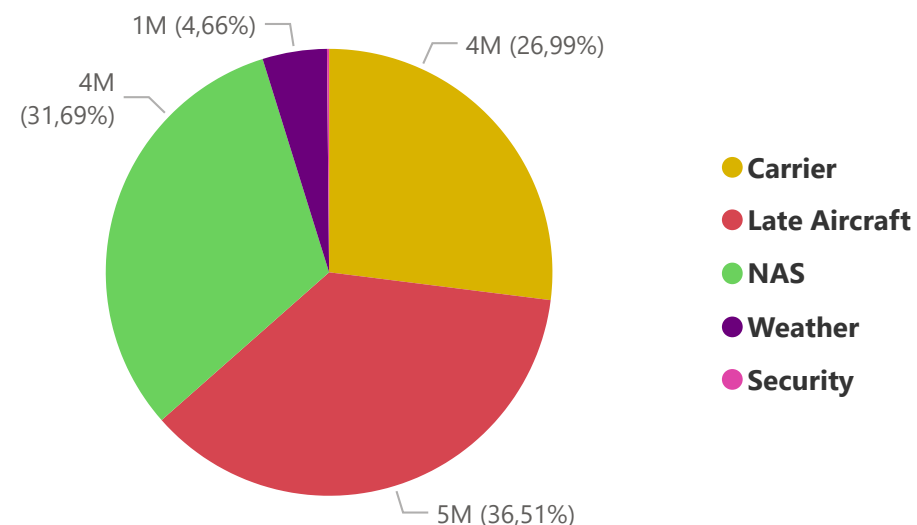
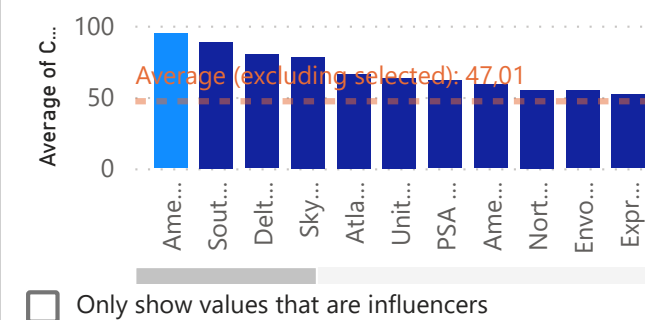


Key influencers

What influences Carrier Delay to ?



← Carrier Delay is more likely to increase when Carrier is American Airlines Inc. than otherwise (on average).



Random Forest Regressor

with an R2 Score = 0.9

4 Inputs

Year, month, carrier and airport

75 Features

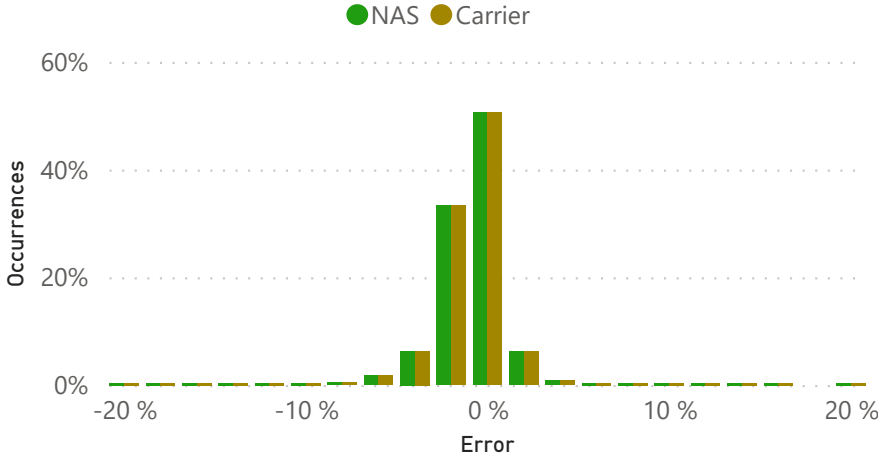
Year(1), month(12), carrier(32), airport(30)

4 Outputs

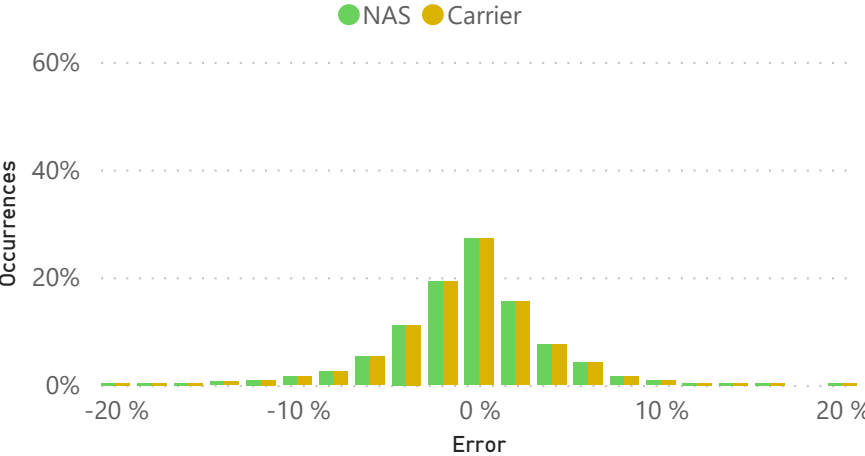
NAS and Carrier Delay Rate and Time

Monthly Rate of Flights that experience NAS and Carrier Delays

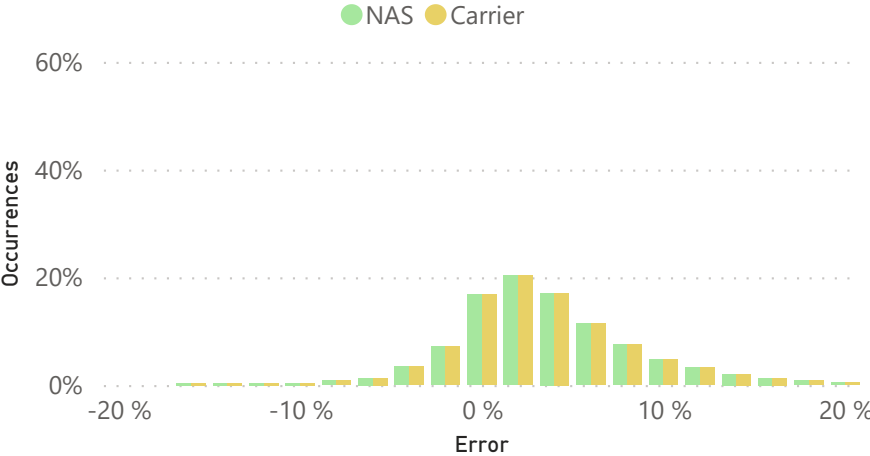
2003-2018 (Training Data)



2019 (Test 1)

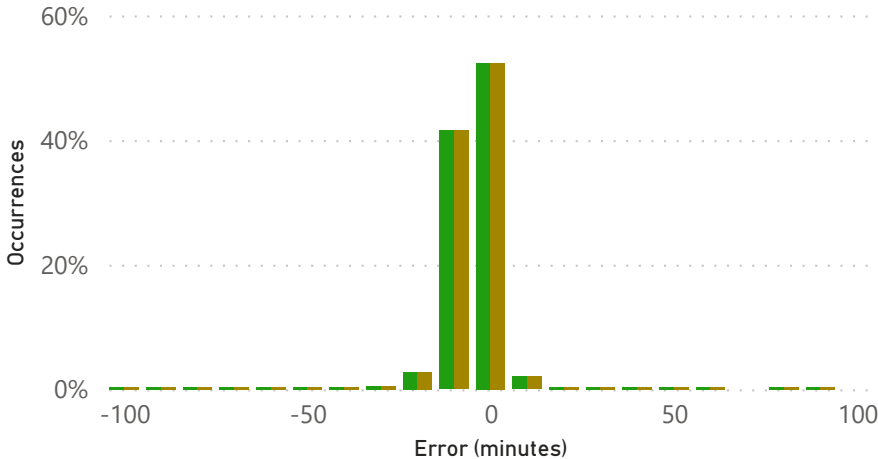


2020 (Test 2)

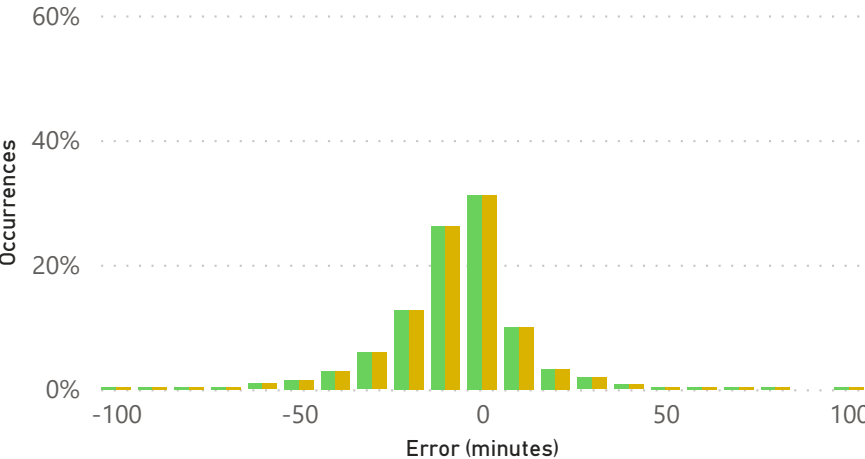


Monthly Average Delay Time due to NAS and Carrier Delays

2003-2018 (Training Data)



2019 (Test 1)



2020 (Test 2)

