

On Time Performance Analysis of United Airlines

Sai Lahari Jalaparthi

Shrenik Sheth

Saranya Vivekanandhan

Monishaa Manickavasagam

Mansi Sachdeva

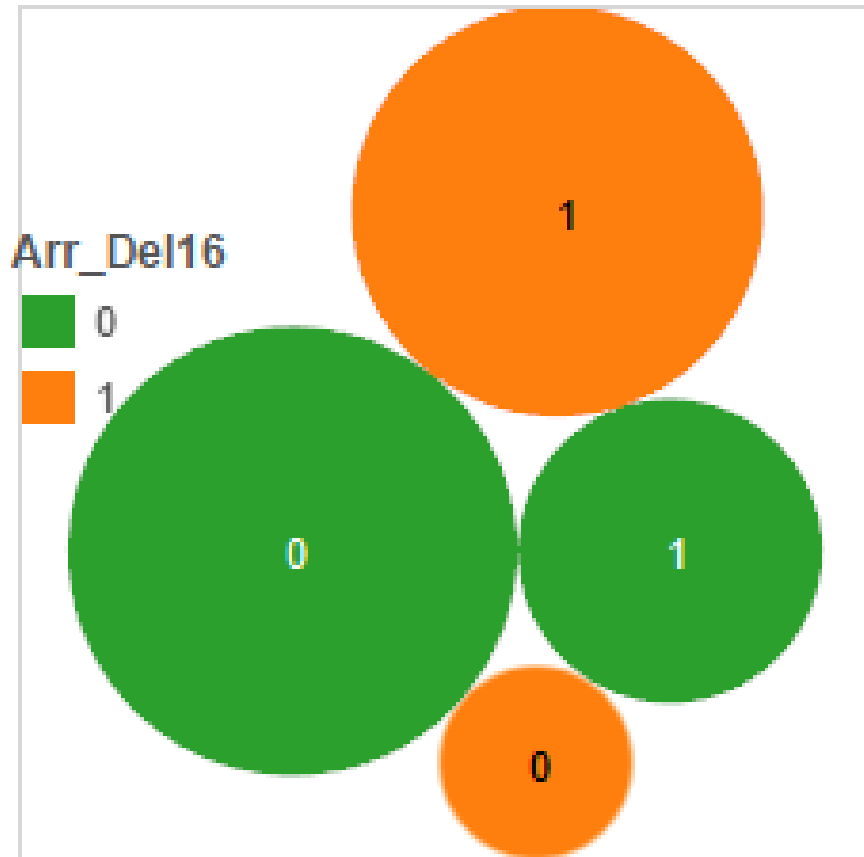
Niharika Machhiwal

Introduction

- Visualisations for depictions of patterns between metrics that help explain on-time performance.
- On-Time performance based on several factors like Arrival delay, departure delay, cancellation with respect to time and space.
- Data visualization practices to compare United Airline against the other airlines.

Arrival Vs Departure Delay

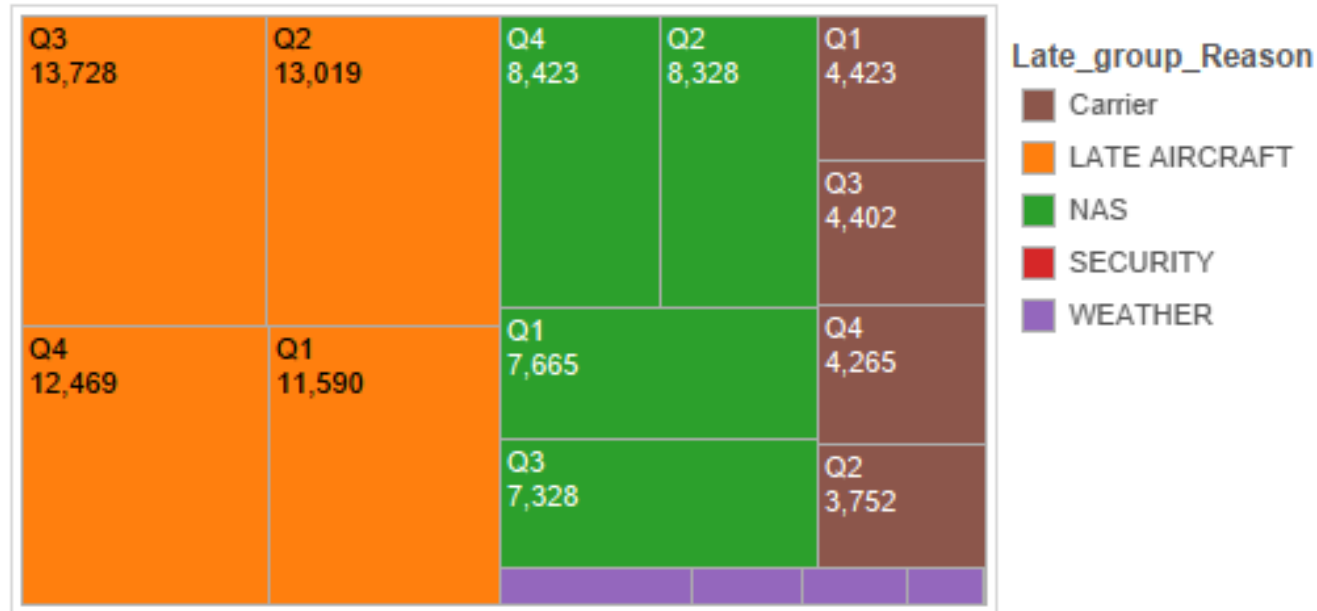
No. of UA flights with arrival
and departure delay



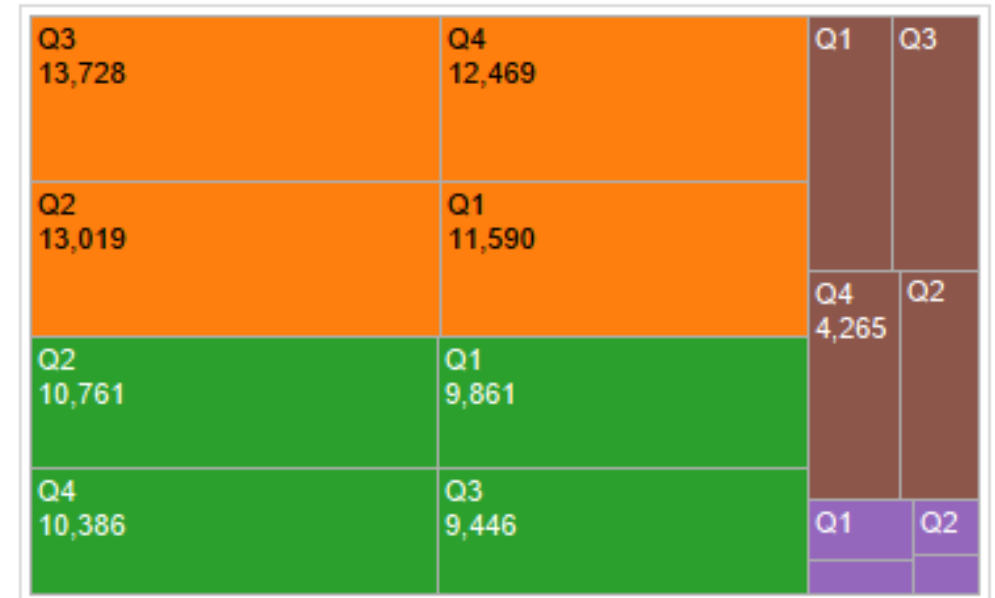
- Departure Delay – Label
- Arrival Delay – Colour
- Most of the flights have Arrival & Departure delay

Departure and arrival delay with respect to causes during quarters

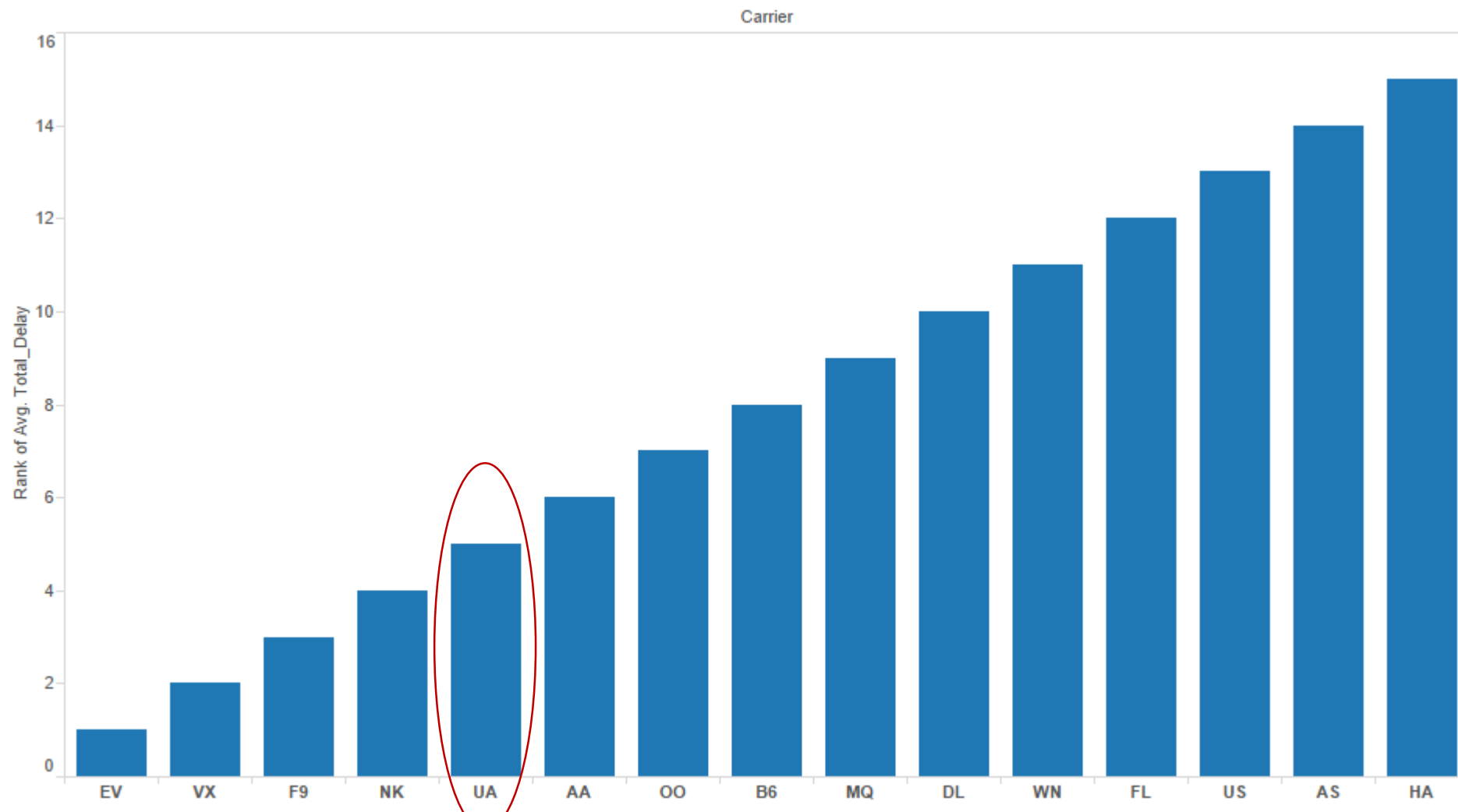
Departure Delay



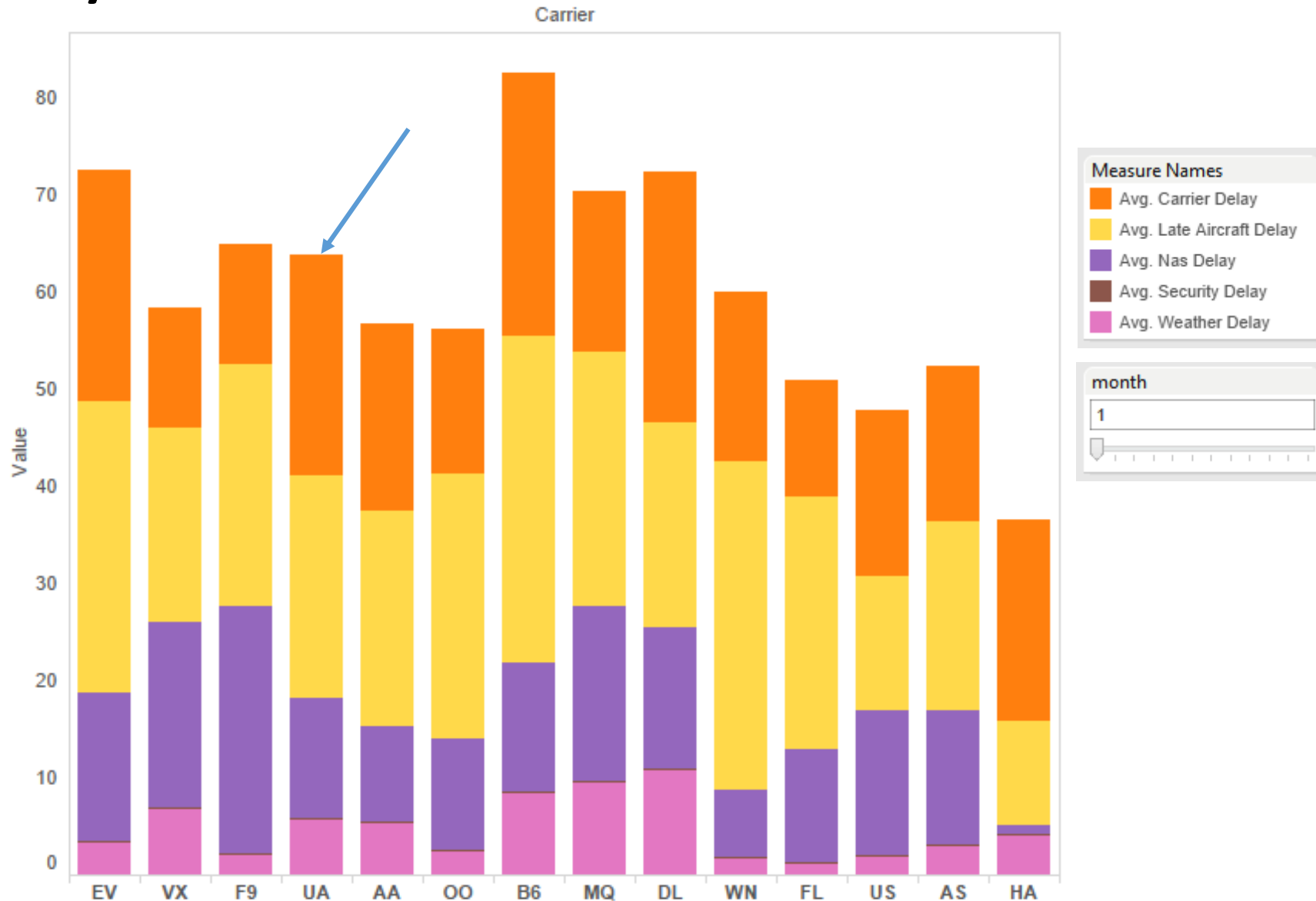
Arrival Delay



Ranking based on Average Total Delay

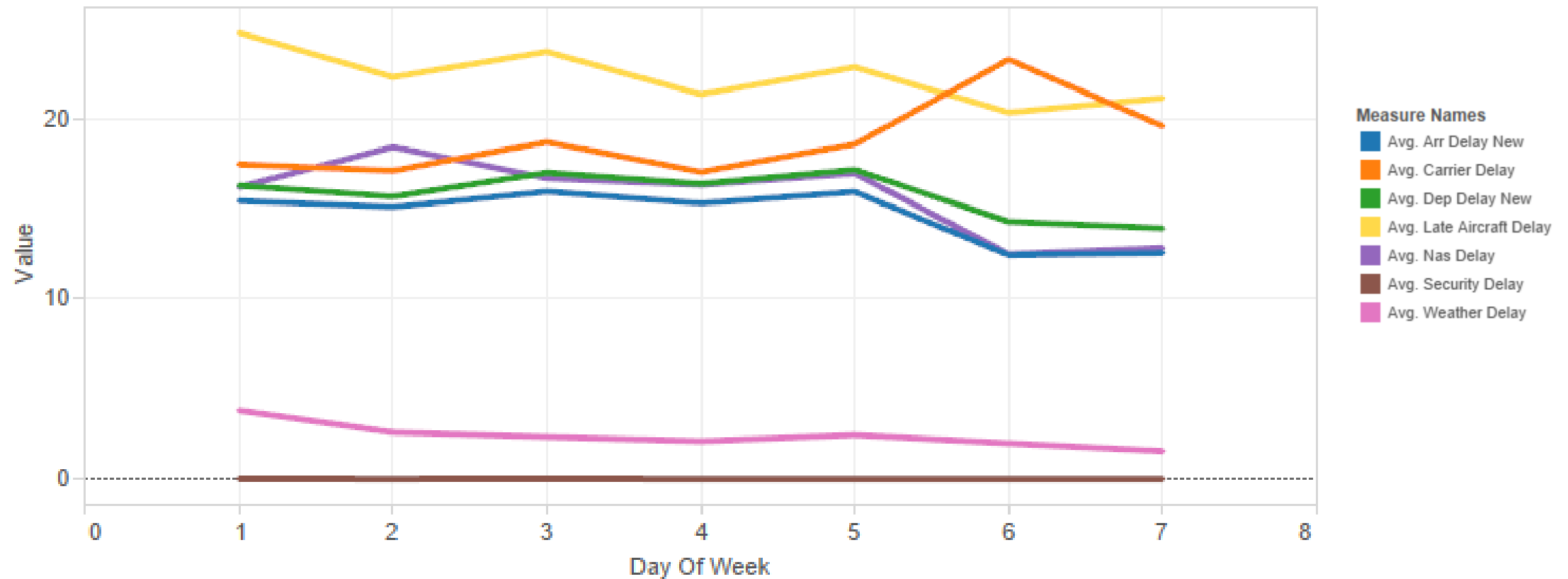


Delay factors for all Airlines With Time



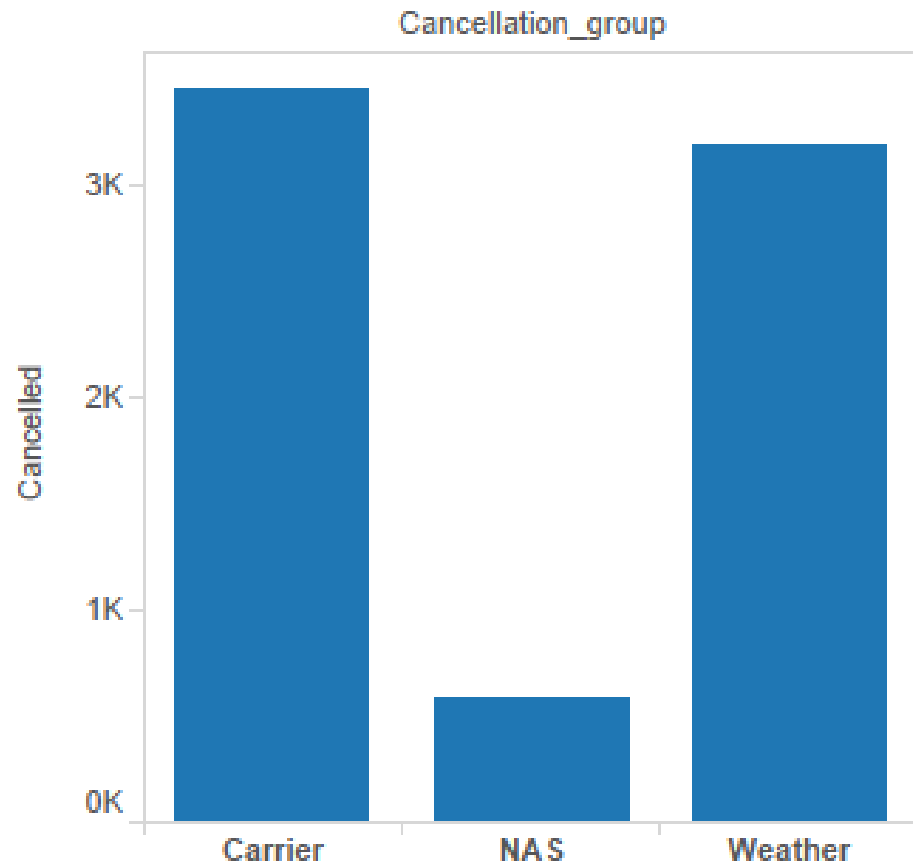
The different delay caused during a week

All Delay_DayOfWeek



Cancellation Factors for UA

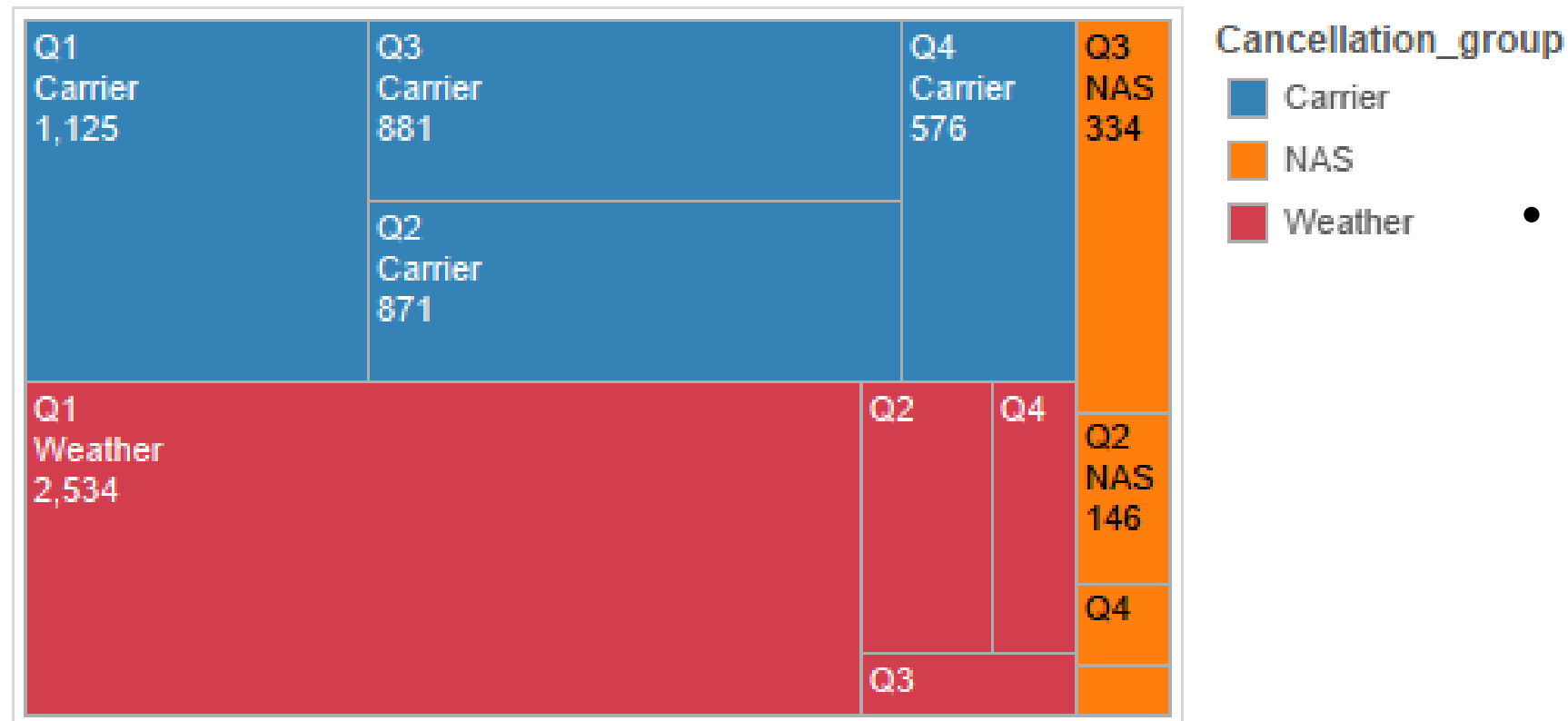
Cancellation Factors-UA



- “Carrier” Cancellations were high
- No “Security” cancellations

Cancellation Factors during 4 quarters For UA

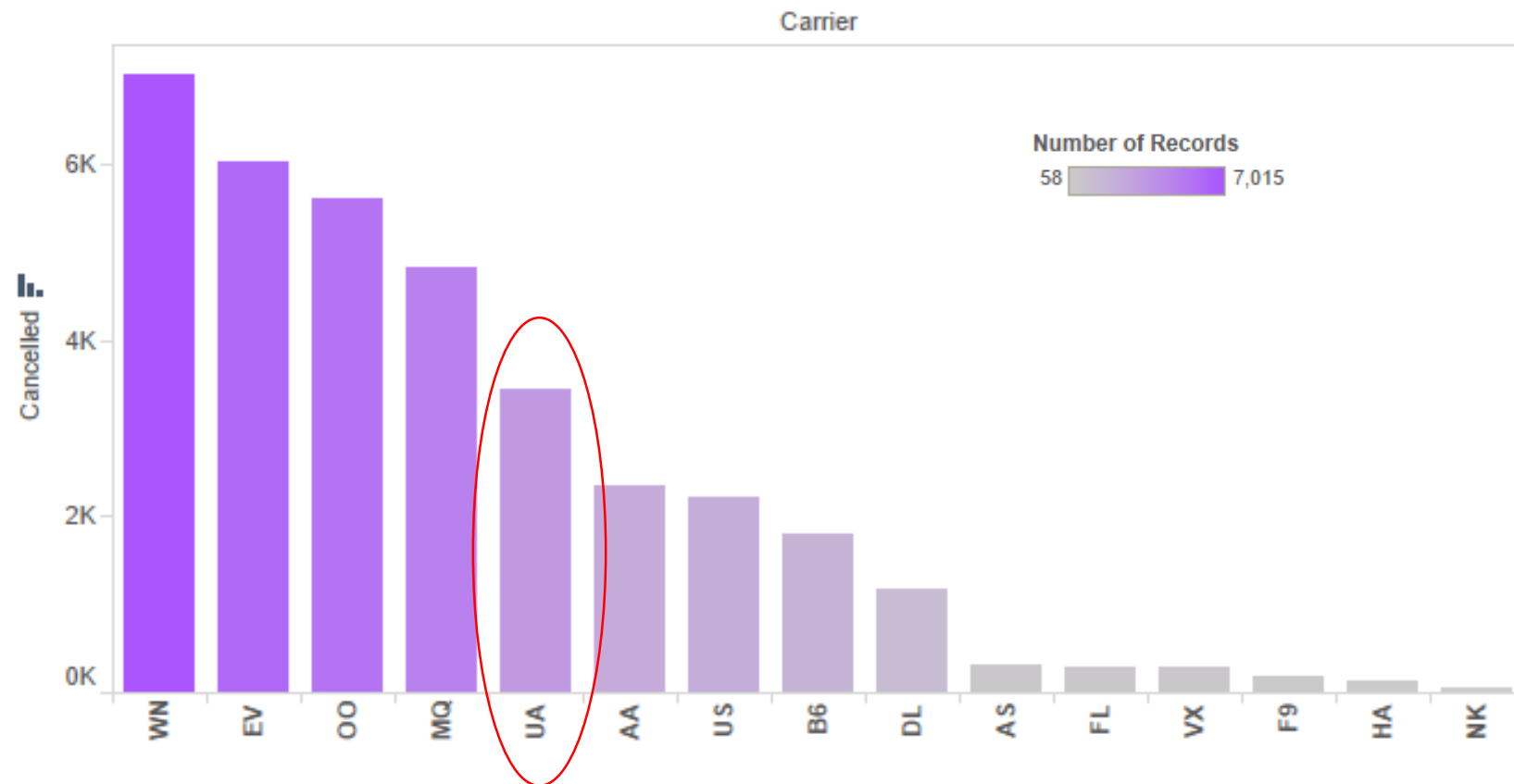
Cancellation_UA_Quart_Factors



- “WEATHER” cancellations are high in the first quarter

Cancellation Records for all airlines

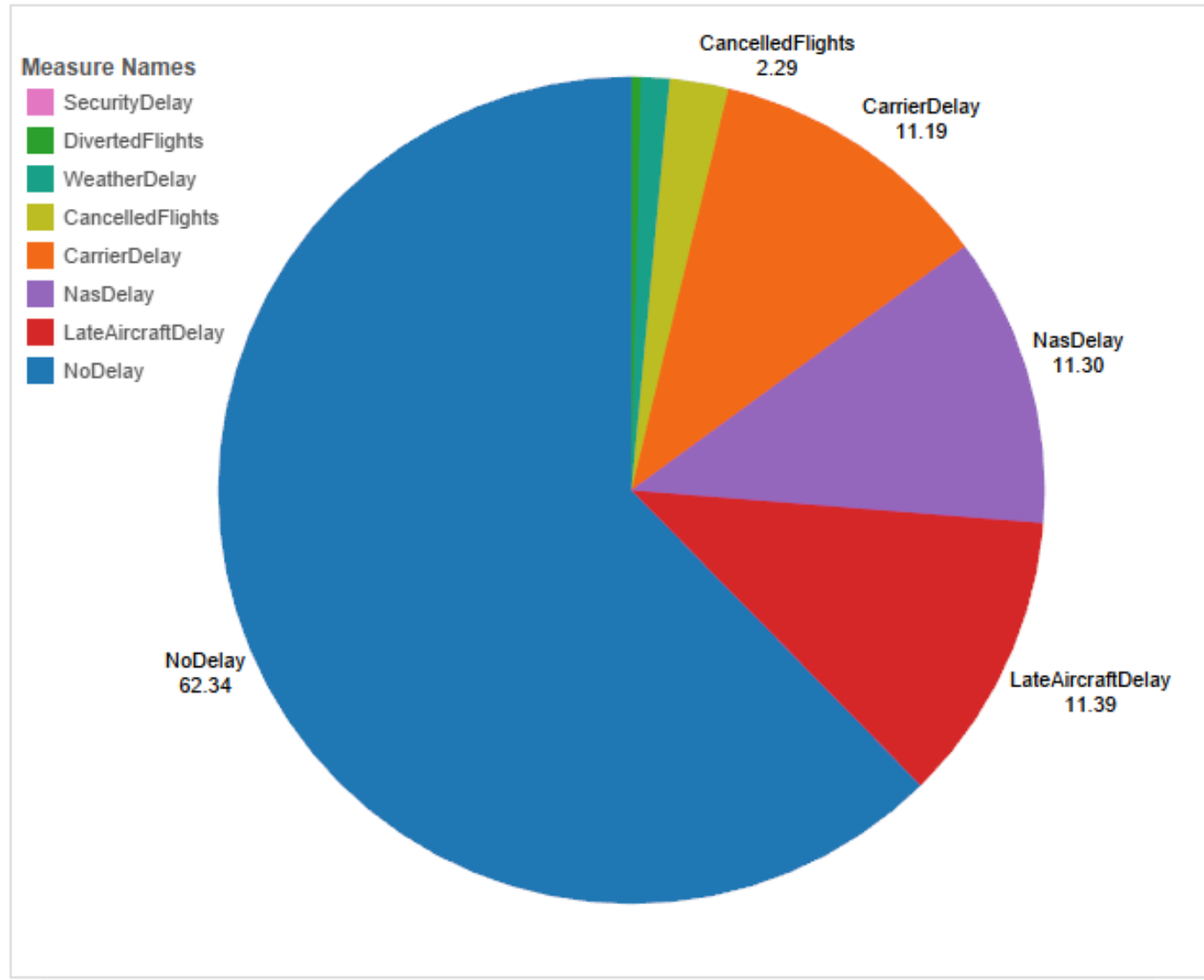
Cancellation_comparison



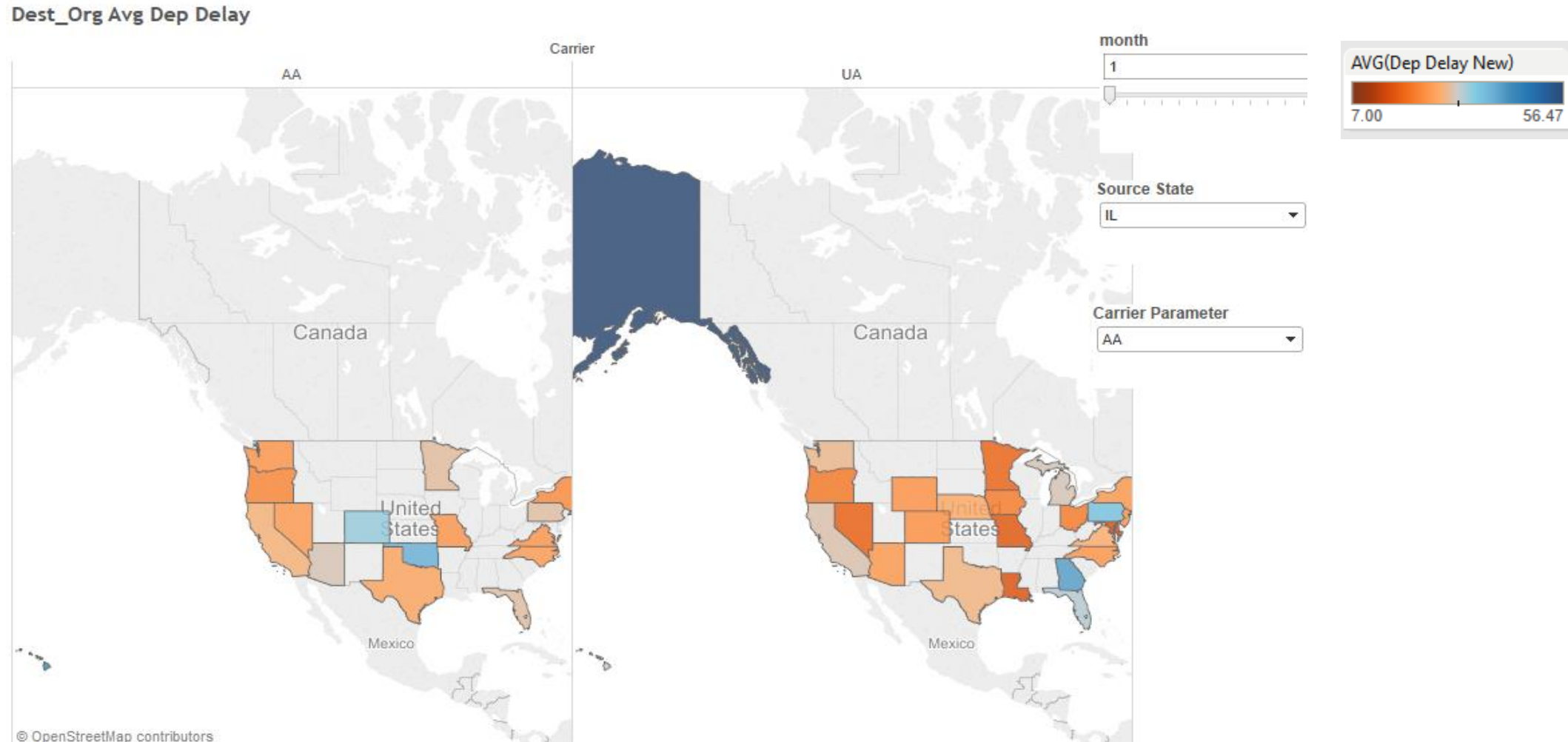
- UA stands 5th in comparison to other airlines

On-time performance

On time performance_UA

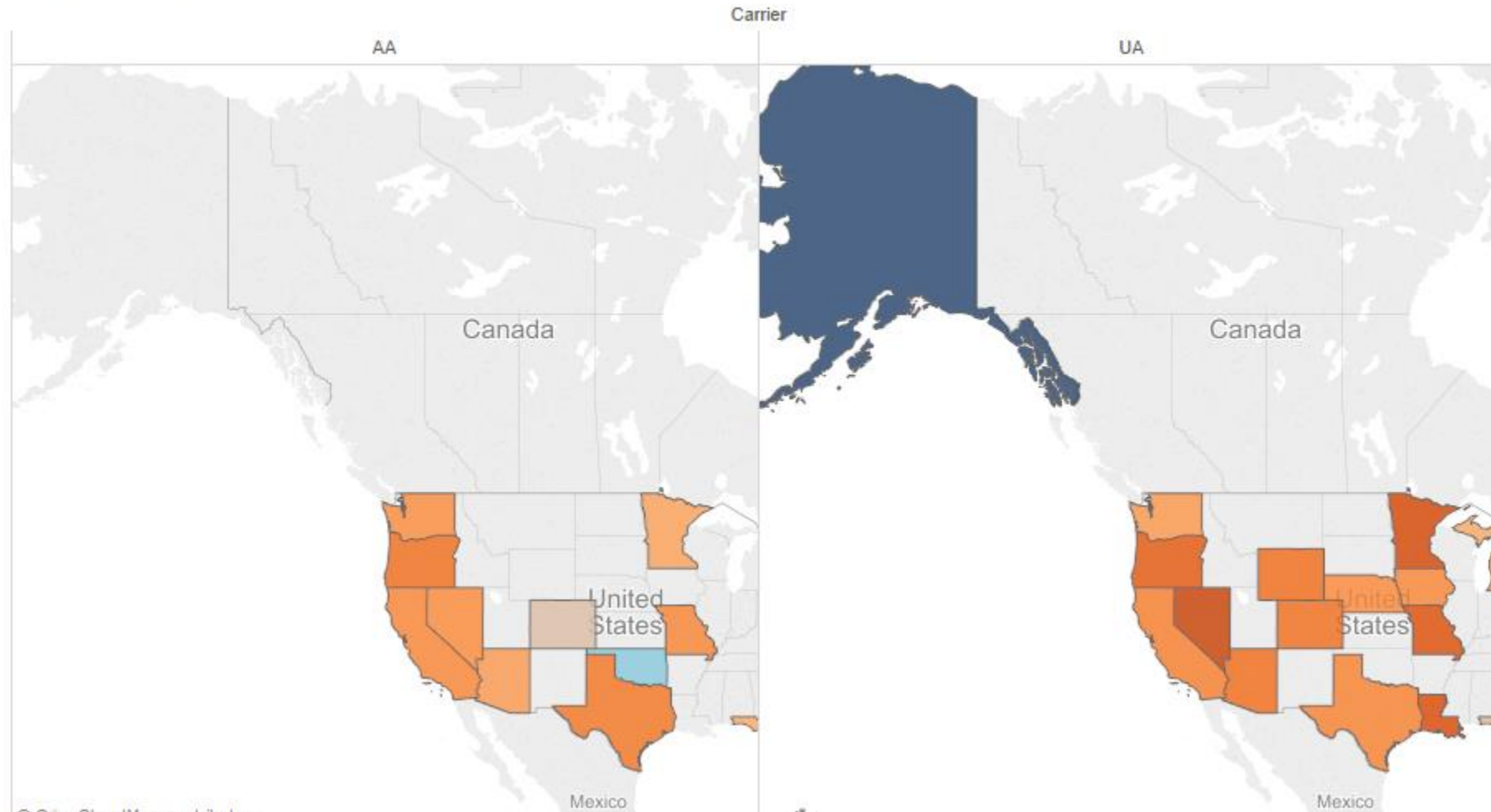


Time & Space Incorporated with Departure Delay



Time & Space Incorporated with Arrival Delay

Dest_org_avg_arr_delay



month

1

Source State

IL

Carrier Parameter

AA

AVG(Dep Delay New)

7.00

56.47

Conclusions & Recommendations