

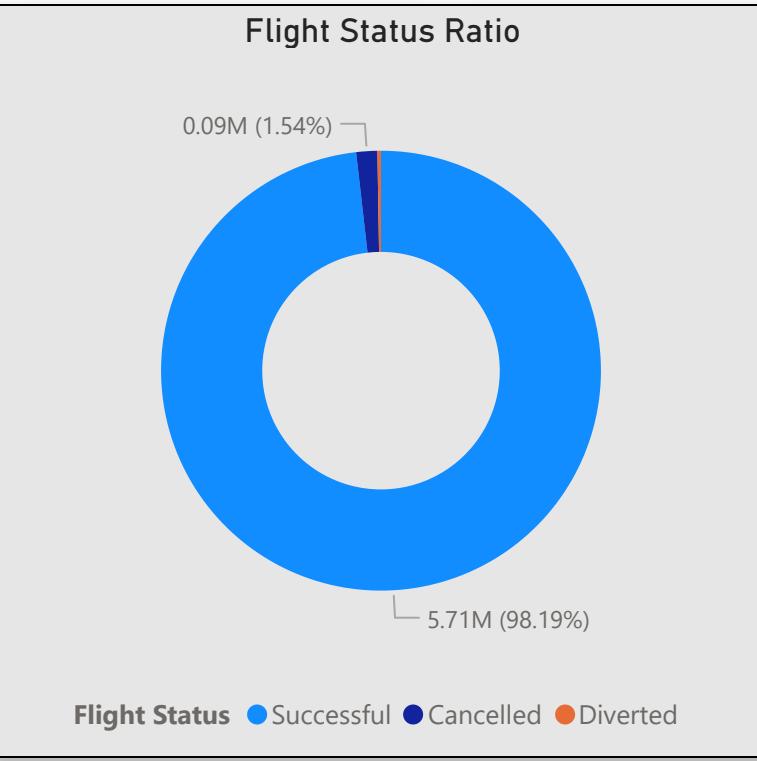
Flights Operation Summary

YEAR
2015

1.54%
Cancellation Rate %

7.69
Daily Air Time per Aircraft

3.26
Flights per Aircraft



Number of Airports

322

Number of Flights

5.82M

Number of Airlines

14

Number of States

54

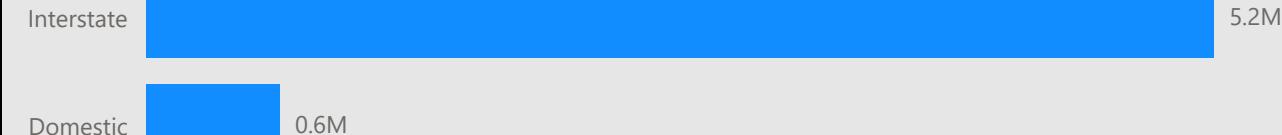
Number of Routes

4696

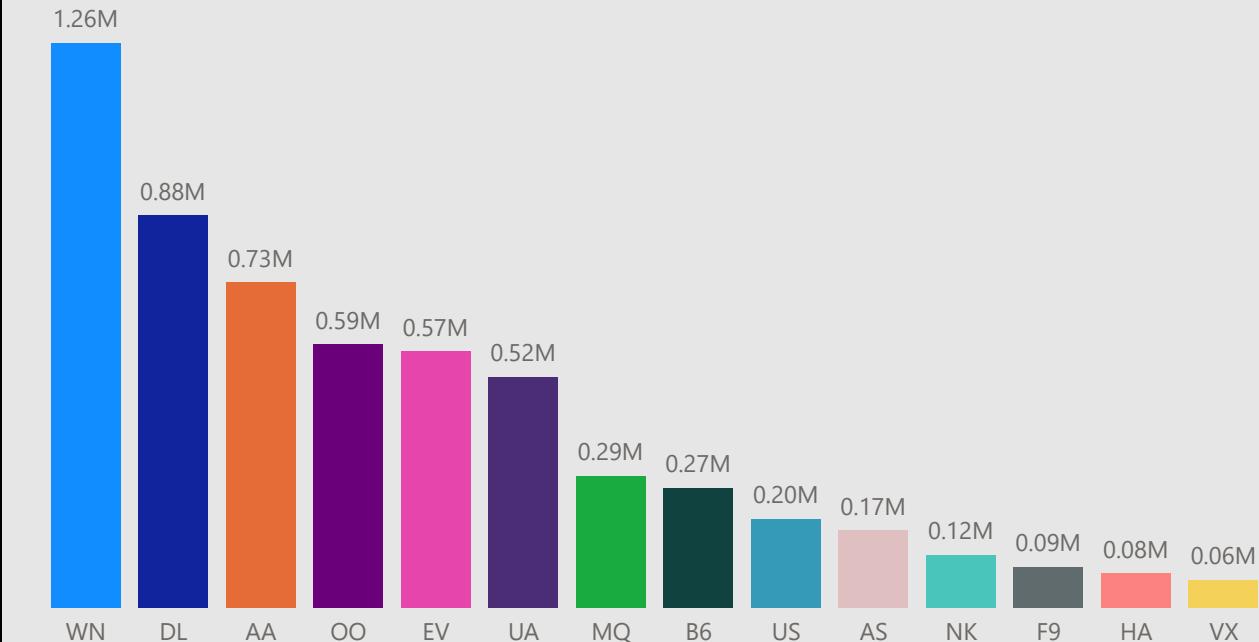
Number of Aircraft

4895

Amount of Flights by Flight Type

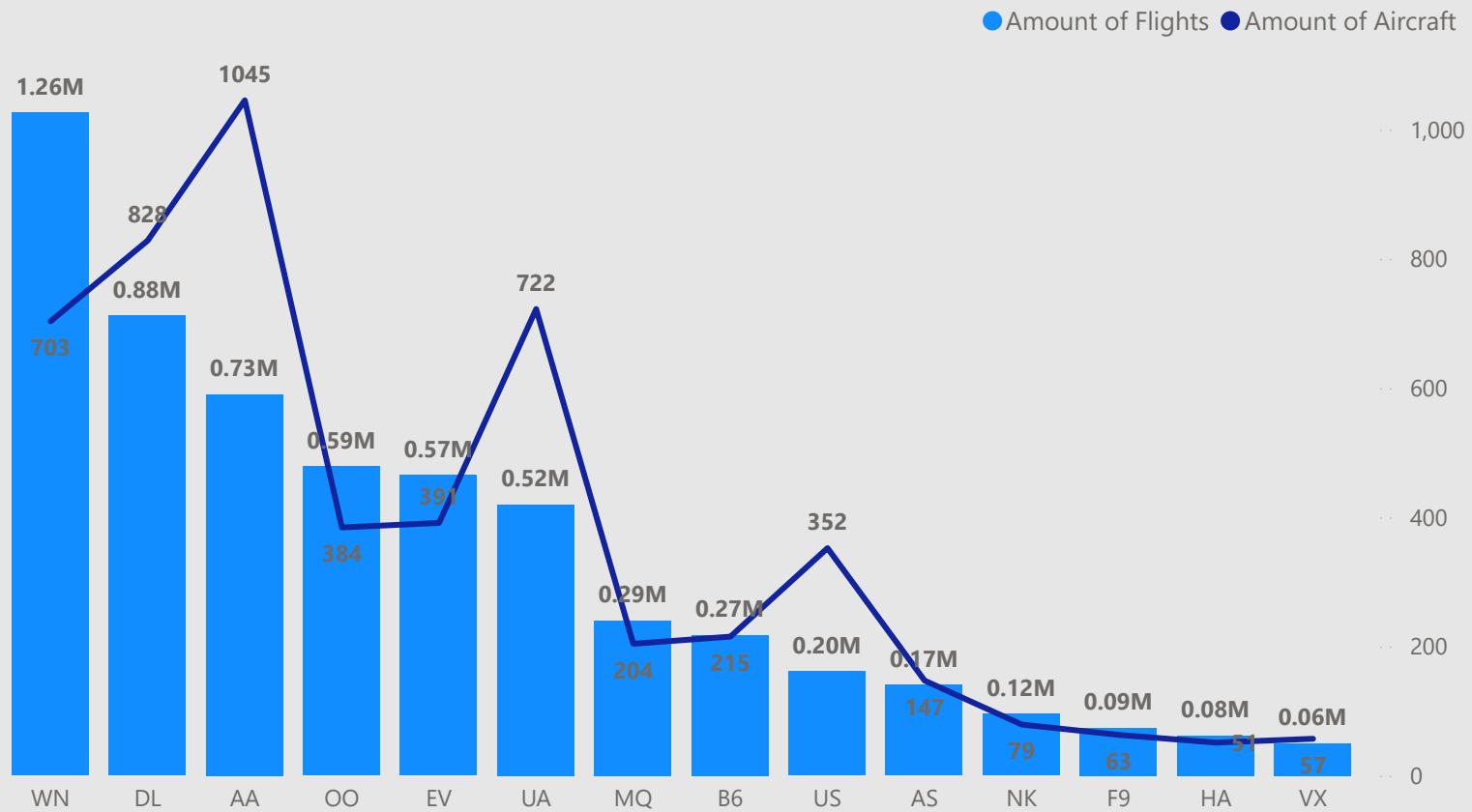


Amount of Flights by Airline

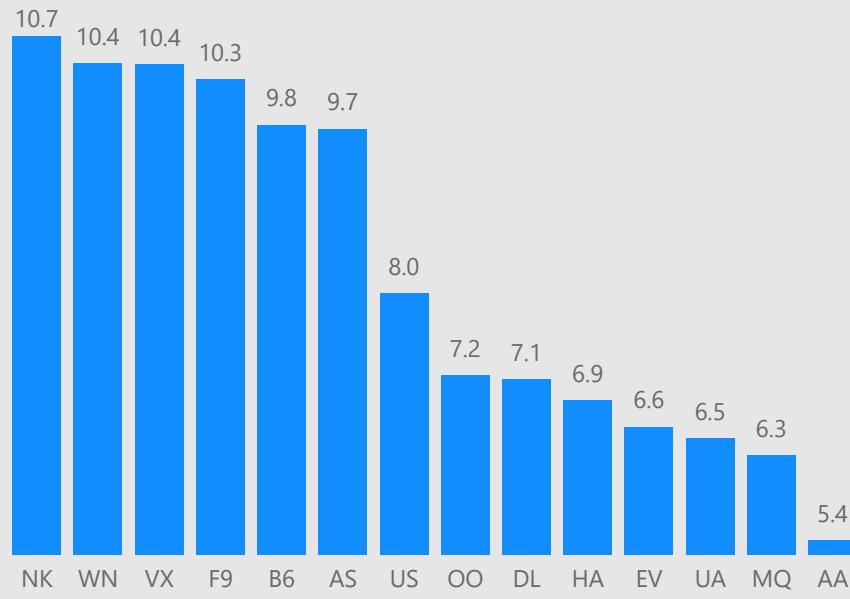


Efficiency Metrics

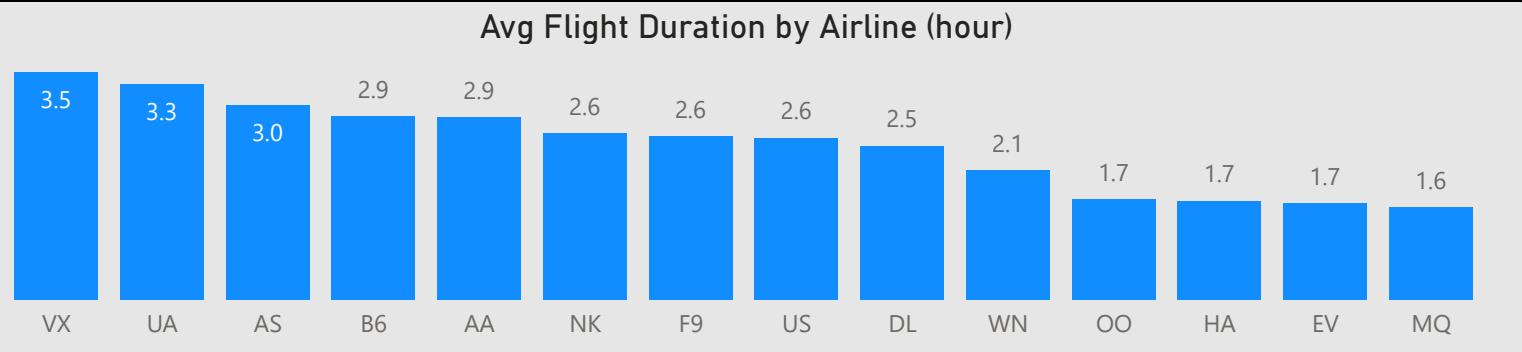
Amount of Flights by Airline vs Amount of Aircraft



Aircraft Utilization: Daily Air Time (hour)



Daily Amount of Flights per Aircraft by Airline



Amount of Flights by Airline per Month

120K

100K

80K

60K

40K

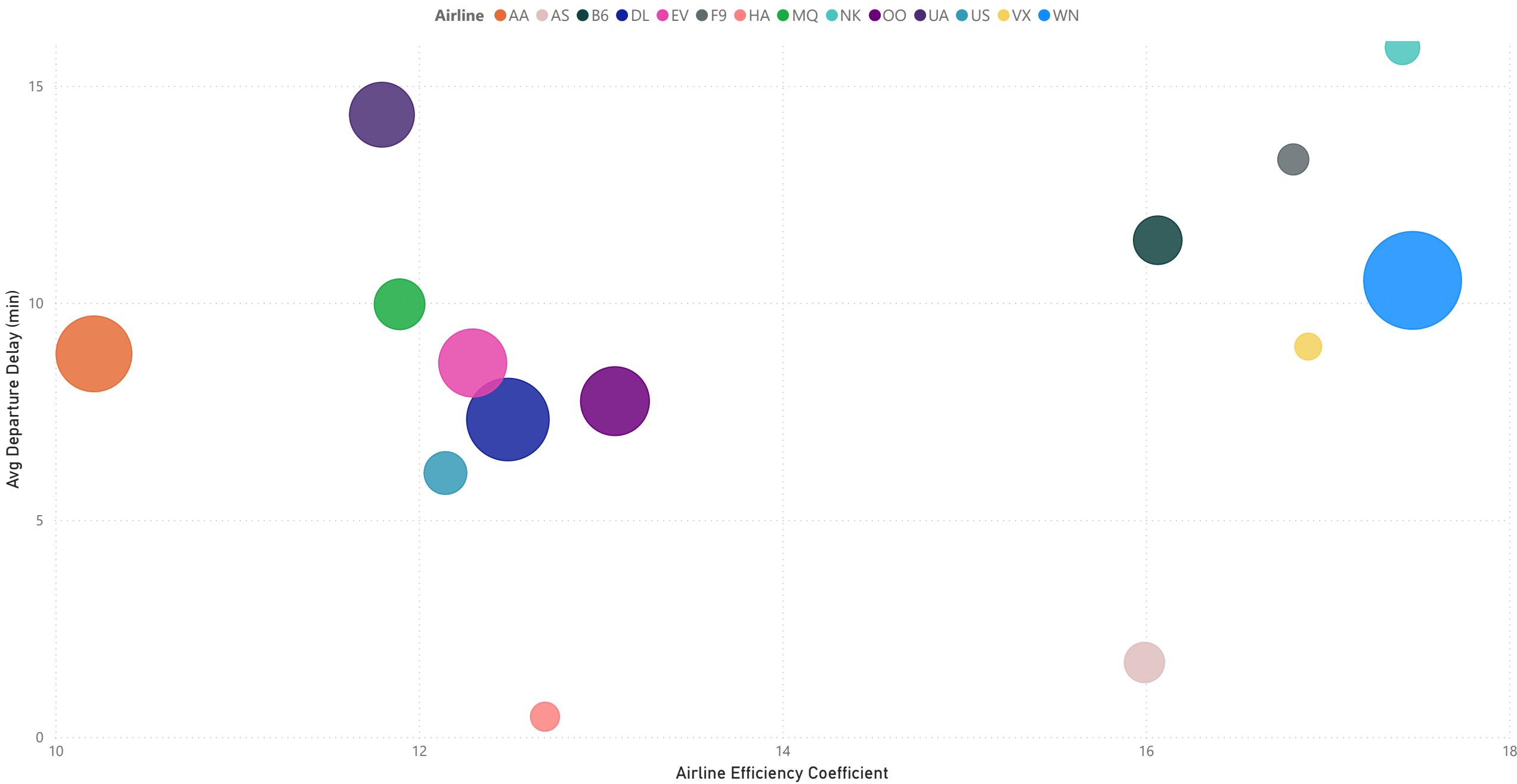
20K

0K

January February March April May June July August September October November December

Airline AA AS B6 DL EV F9 HA MQ NK OO UA US VX WN

Efficiency & Delays



Departure Delays Analysis

Avg Departure Delay
(min)

9.29

Avg Departure Delay per Flight
Number (min)

9.20

Median Departure Delay
(min)

-2.00

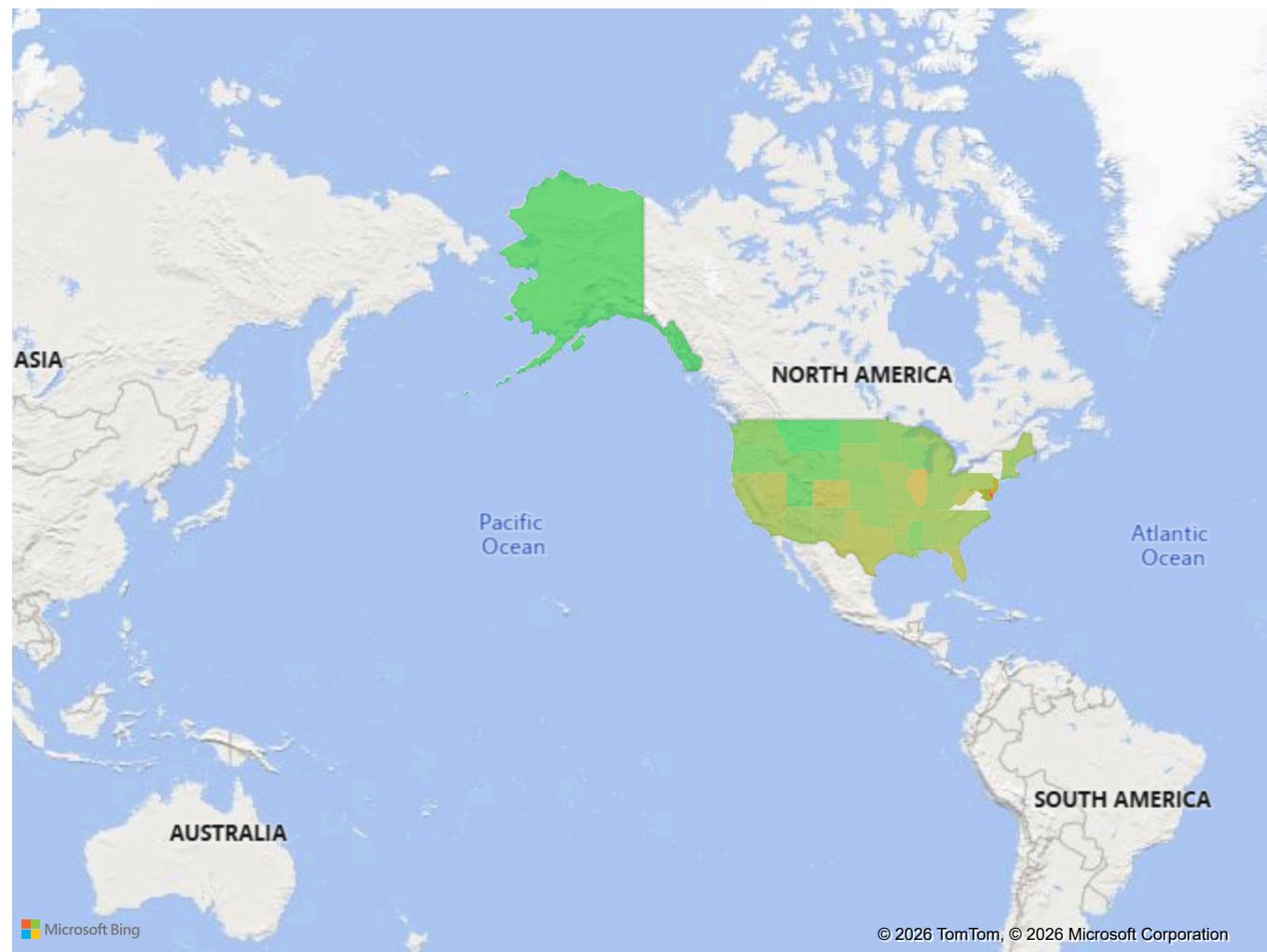
Total Mins of Departure Delays

53.11M

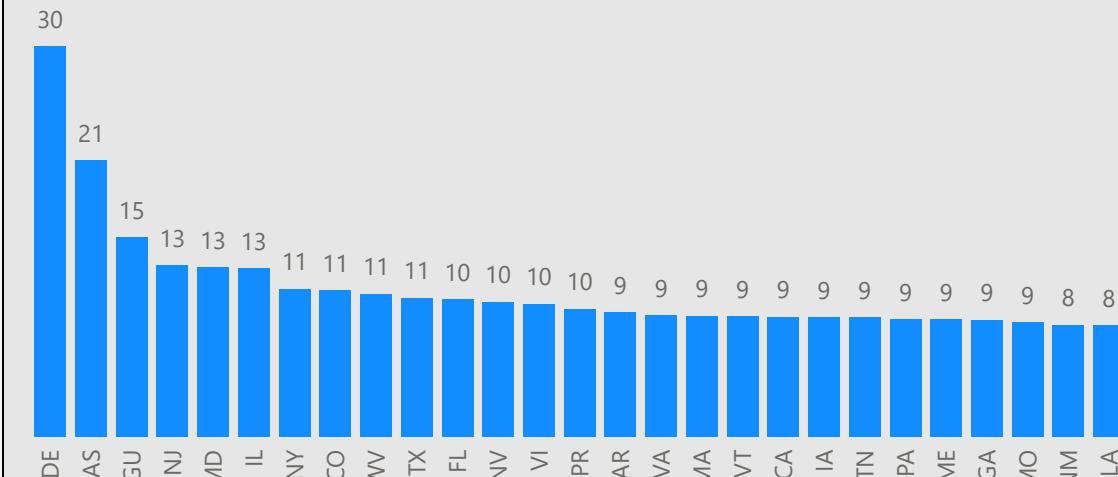
Total Number of Departure
Delays

5,714K

Average Departure Delays by State (min)



Avg Departure Delays by STATE (min)



Avg Departure Delays by AIRLINE (min)



Arrival Delays Analysis

Avg Arrival Delay
(min)

4.41

Avg Arrival Delay per Flight
Number (min)

4.85

Median Arrival Delay (min)

-5.00

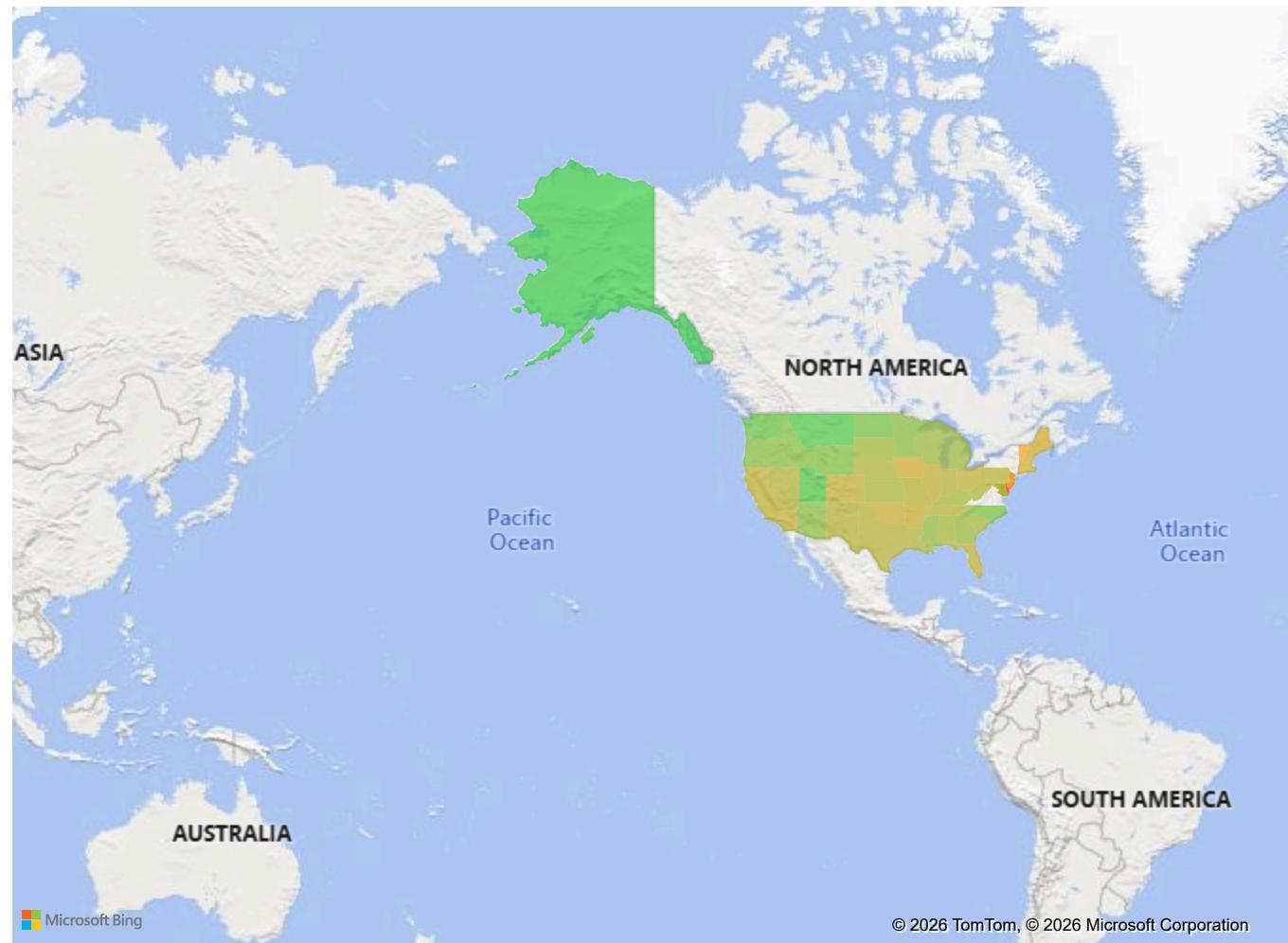
Total Mins of Arrival Delays

25.18M

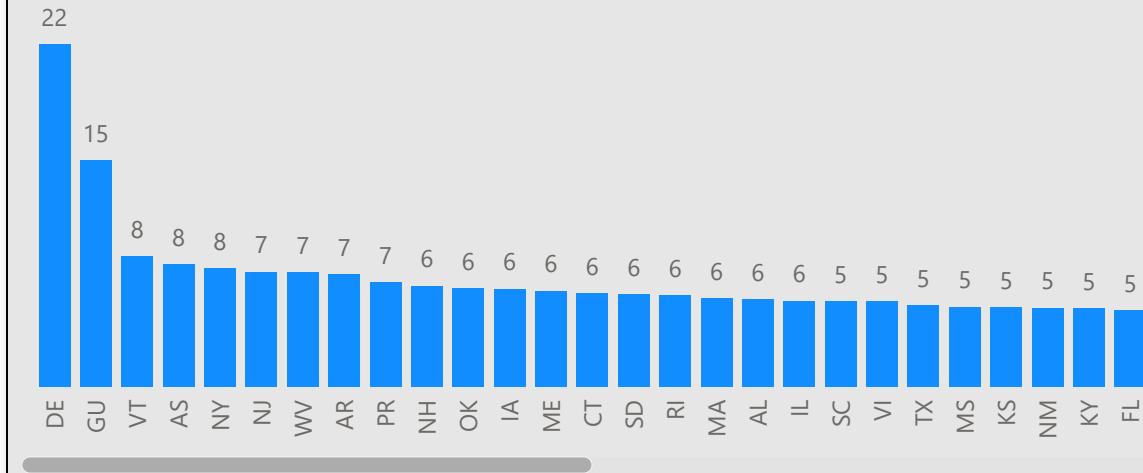
Total Number of Arrival
Delays

5,714K

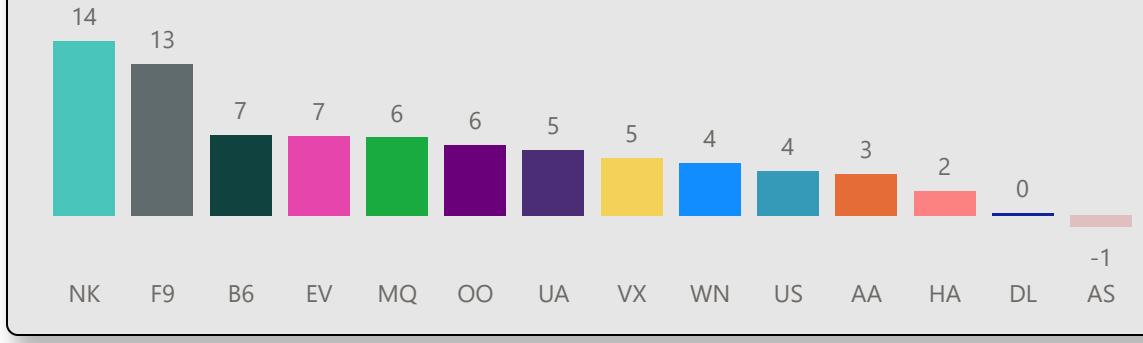
Average Arrival Delays by State (min)



Avg Arrival Delays by STATE (min)



Avg Arrival Delays by AIRLINE (min)



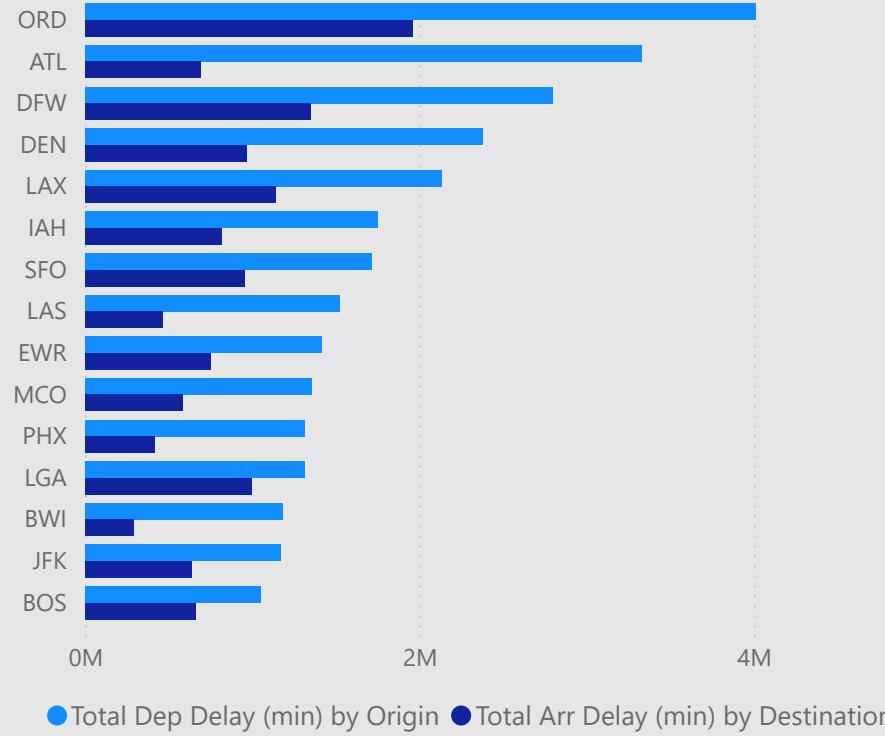
Departure Delay Patterns by Time and Airline

Heatmap: AVG Departure Delay(min) by Hour x Weekday																									
day_name	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sunday	52.70	73.46	107.60	80.99	-0.47	-3.51	-1.44	0.21	1.50	3.22	4.14	5.11	6.93	7.60	9.81	9.80	11.28	11.18	13.72	14.78	18.51	22.07	28.59	42.96	9.33
Monday	56.71	75.42	99.36	73.61	-0.03	-3.22	-1.26	1.06	3.26	5.31	6.13	8.08	9.18	10.11	11.74	11.62	13.09	12.63	15.35	16.98	20.90	25.49	31.16	49.90	10.76
Tuesday	55.71	70.80	84.59	76.99	-1.55	-3.80	-1.93	0.28	2.29	4.60	5.45	6.99	7.59	8.37	9.80	10.17	11.27	10.88	13.51	14.44	19.12	22.14	28.66	45.89	9.10
Wednesday	47.66	58.44	76.11	66.79	-2.40	-3.89	-2.12	0.31	1.93	3.92	5.17	6.35	7.68	7.82	9.74	9.62	10.74	10.68	13.44	14.14	18.21	20.61	25.73	40.39	8.60
Thursday	53.84	68.48	90.32	87.59	-2.50	-3.60	-2.06	0.22	1.78	4.04	4.61	6.63	7.88	8.88	10.60	11.09	12.55	12.45	15.99	16.23	21.25	25.07	30.64	44.62	9.88
Friday	53.02	65.70	81.10	70.21	-1.41	-3.44	-1.71	0.16	2.03	4.03	5.15	6.76	8.11	8.82	10.44	10.74	11.76	11.29	14.06	14.51	19.66	22.63	27.40	43.66	9.37
Saturday	39.46	49.14	69.86	46.20	-2.41	-3.43	-1.30	0.24	1.83	3.99	4.58	5.64	6.34	7.41	8.70	8.91	10.40	10.12	13.30	14.10	16.81	21.74	25.39	34.90	7.73
Total	51.60	66.45	87.81	71.71	-1.57	-3.57	-1.71	0.36	2.09	4.17	5.04	6.53	7.69	8.45	10.15	10.31	11.62	11.36	14.24	15.07	19.32	22.89	28.40	43.56	9.29

Heatmap: % Departure Delay more than 120 min by Hour x Weekday																									
day_name	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sunday	18.4%	25.4%	39.5%	29.8%	1.5%	0.1%	0.1%	0.1%	0.4%	0.8%	1.0%	1.0%	1.4%	1.5%	1.8%	1.8%	2.1%	2.1%	2.4%	2.7%	3.5%	4.8%	7.1%	12.1%	2.0%
Monday	20.7%	25.0%	31.9%	27.5%	1.8%	0.1%	0.1%	0.1%	0.7%	1.1%	1.3%	1.7%	1.9%	2.1%	2.3%	2.2%	2.5%	2.6%	3.1%	3.6%	4.5%	6.2%	8.3%	14.9%	2.4%
Tuesday	20.2%	25.5%	29.1%	25.7%	1.1%	0.0%	0.0%	0.1%	0.6%	1.0%	1.2%	1.3%	1.5%	1.7%	1.8%	1.9%	2.2%	2.1%	2.6%	3.1%	4.3%	5.5%	7.7%	14.5%	2.1%
Wednesday	16.8%	20.2%	27.3%	22.1%	0.8%	0.0%	0.0%	0.2%	0.6%	0.9%	1.2%	1.3%	1.5%	1.5%	1.8%	1.8%	2.0%	2.1%	2.3%	2.8%	3.8%	4.8%	6.3%	11.3%	1.9%
Thursday	19.5%	23.5%	31.0%	25.0%	0.8%	0.1%	0.0%	0.1%	0.5%	0.8%	0.9%	1.3%	1.5%	1.7%	1.8%	1.9%	2.1%	2.3%	2.8%	3.0%	4.3%	5.6%	7.8%	12.6%	2.1%
Friday	19.2%	22.8%	27.0%	24.1%	0.9%	0.0%	0.0%	0.1%	0.4%	0.8%	1.0%	1.2%	1.5%	1.6%	1.7%	1.7%	1.9%	1.9%	2.3%	2.5%	3.9%	5.1%	6.7%	13.2%	1.9%
Saturday	13.2%	15.0%	21.1%	12.2%	0.6%	0.1%	0.1%	0.1%	0.5%	0.9%	1.0%	1.2%	1.2%	1.4%	1.6%	1.7%	1.9%	2.1%	2.6%	2.9%	3.4%	5.1%	6.9%	10.5%	1.7%
Total	18.4%	22.7%	29.8%	23.8%	1.1%	0.1%	0.0%	0.1%	0.5%	0.9%	1.1%	1.3%	1.5%	1.6%	1.8%	1.9%	2.1%	2.2%	2.6%	2.9%	3.9%	5.3%	7.3%	12.8%	2.0%

Airports & Time

Airports by Total Departure Delay and Total Arrival Delay, min
(TOP 15)



AIRLINE

- Select all
- AA
- AS
- B6
- DL
- EV
- F9
- HA
- MQ

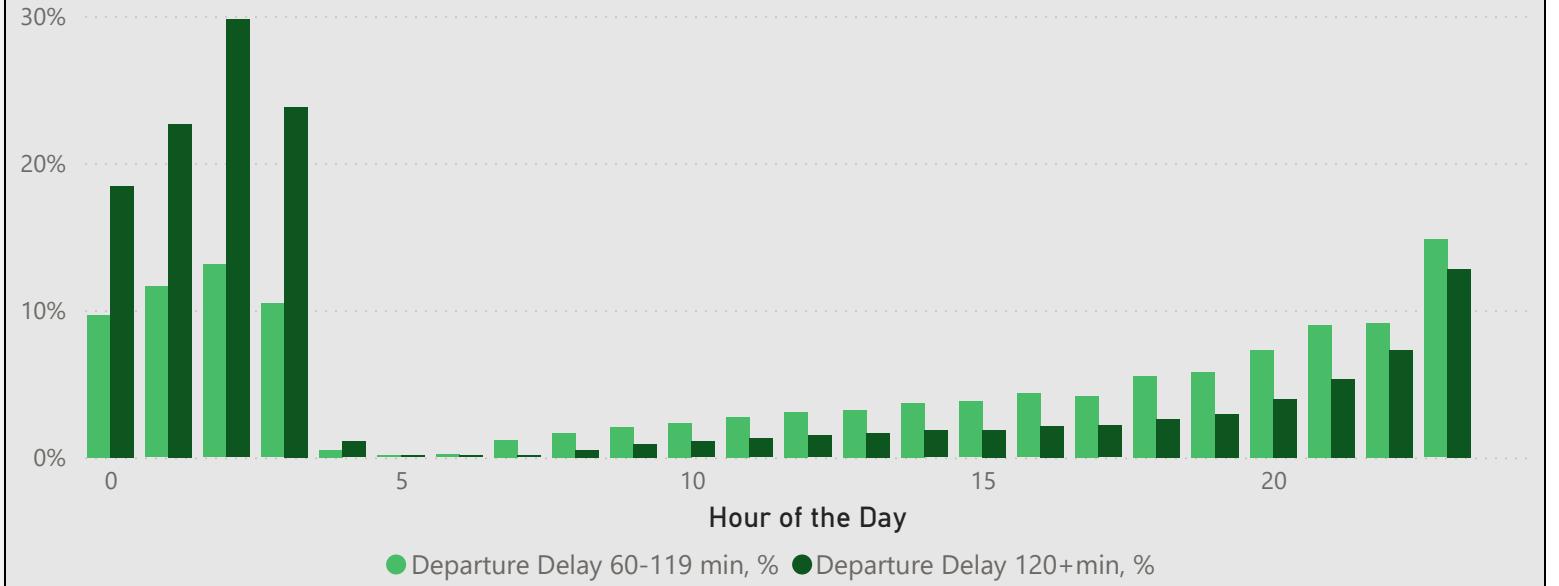
3.69%

Departure Delay 60-119 min, %

2.0%

Departure Delay 120+min, %

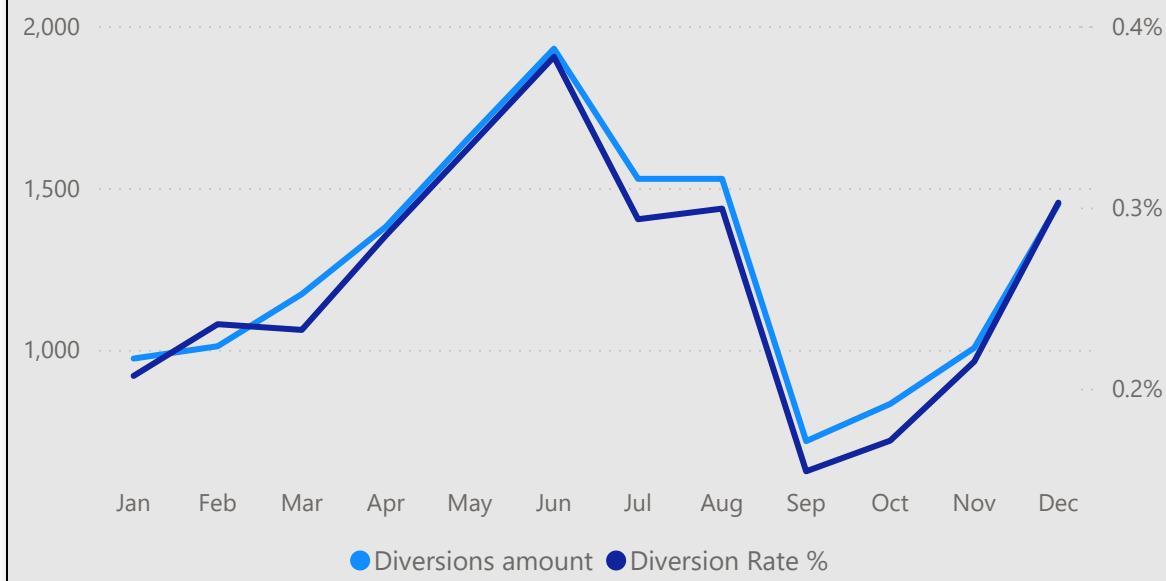
Severe Departure Delay % by Hour (60–119, 120+ min)



MONTH

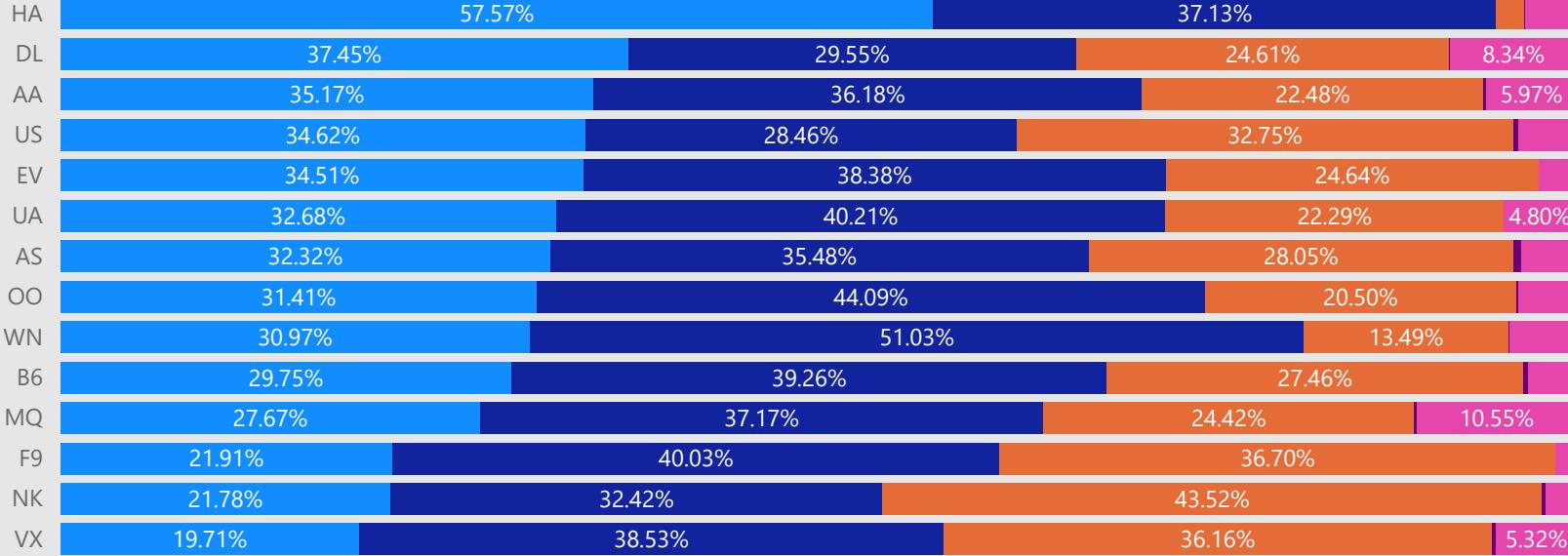
- Select all
- Jan
- Feb
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec

Diversions by Month



Causes & Reliability

Share of Delay Minutes by Cause (within Airline), %



Avg Departure Delay (min)

9.29

Avg Arrival Delay (min)

4.41

Delayed Flights

5,714K

Total Delay Mins

53.11M

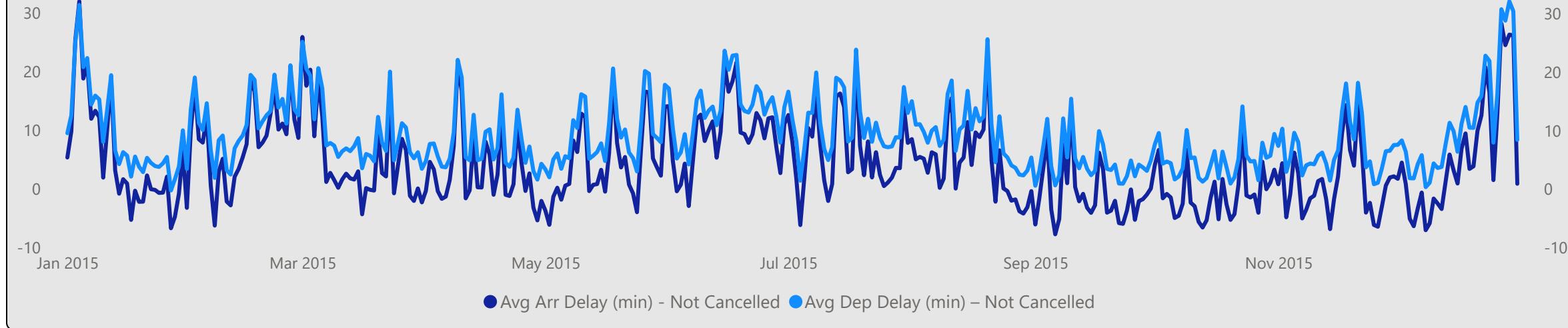
MONTH

Jan	Jul
Feb	Aug
Mar	Sep
Apr	Oct
May	Nov
Jun	Dec

AIRLINE

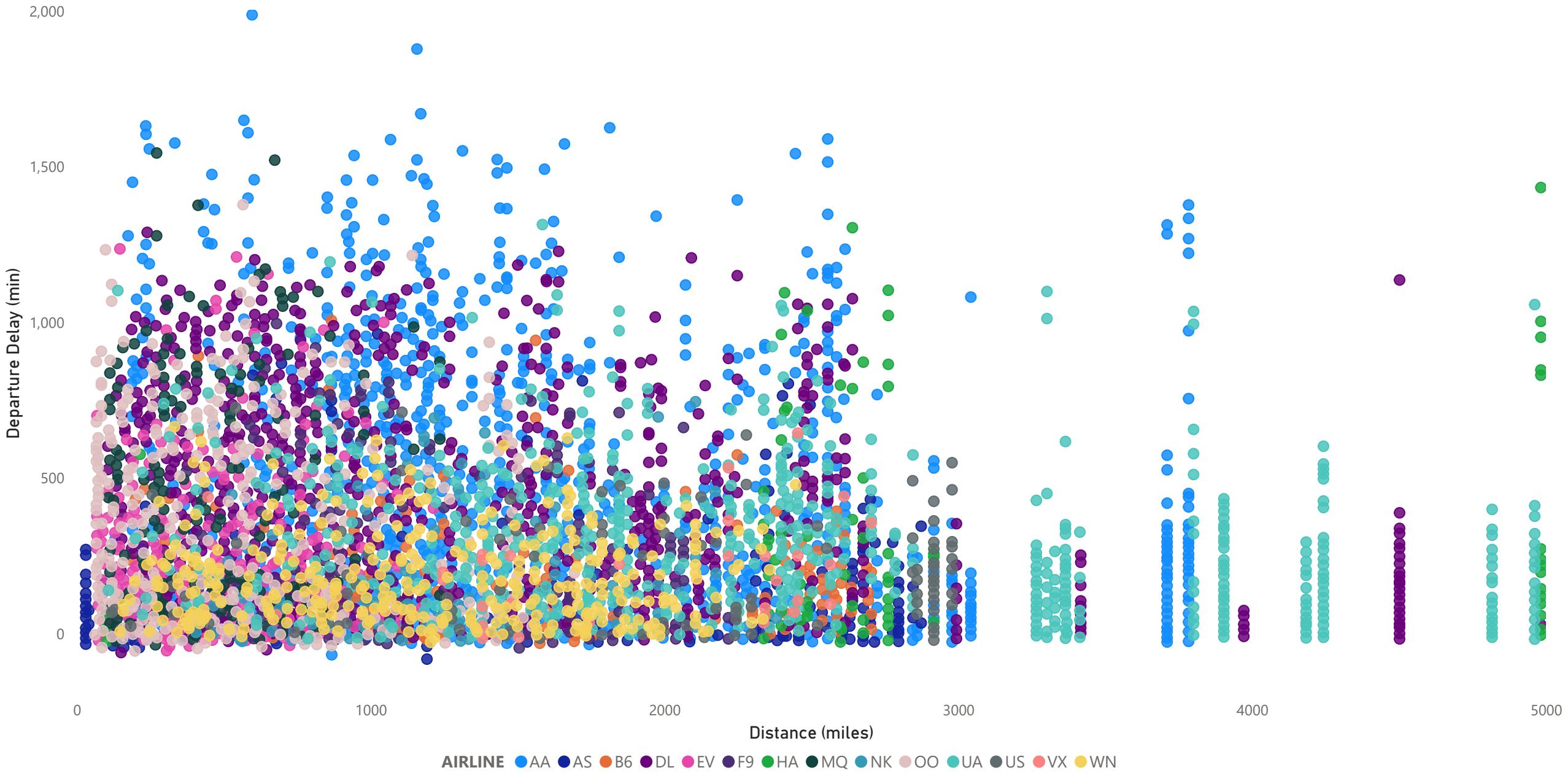
<input type="radio"/> Select all
<input type="radio"/> AA
<input type="radio"/> AS
<input type="radio"/> B6
<input type="radio"/> DL
<input type="radio"/> EV
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<input type="radio"/> HA
<input type="radio"/> MQ
<input type="radio"/> NK
<input type="radio"/> OO
<input type="radio"/> UA
<input type="radio"/> US
<input type="radio"/> VX
<input type="radio"/> WN

Avg Arrival Delay (min) and Avg Departure Delay (min) by Months



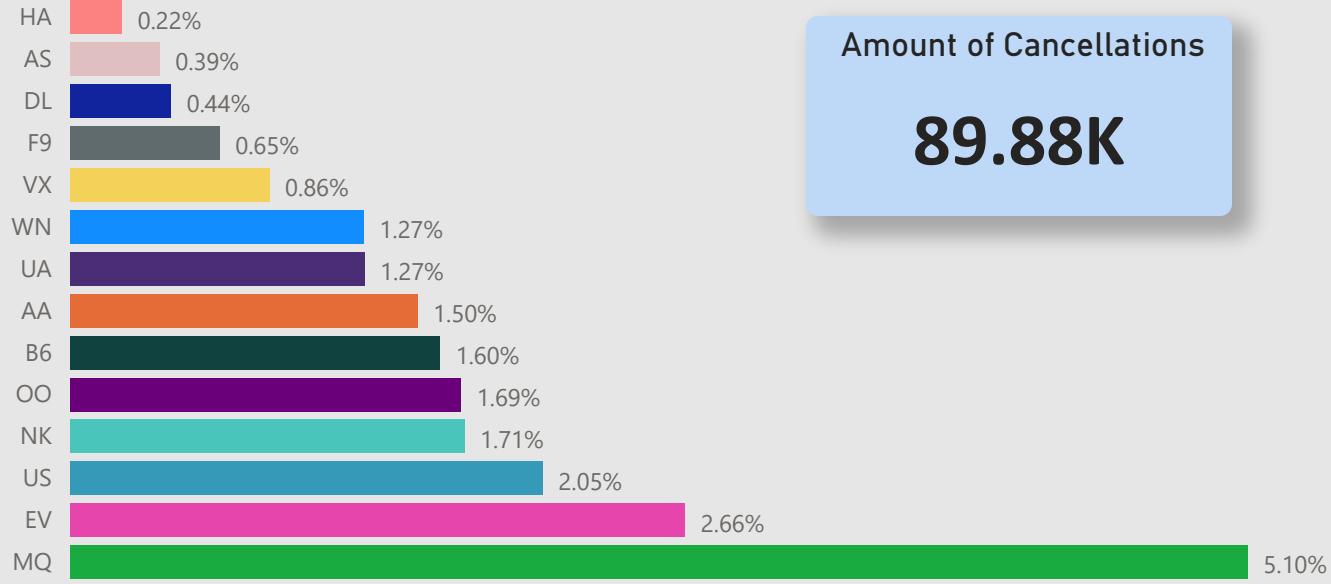
Delay & Distance

Departure Delay vs Flight Distance by Airline

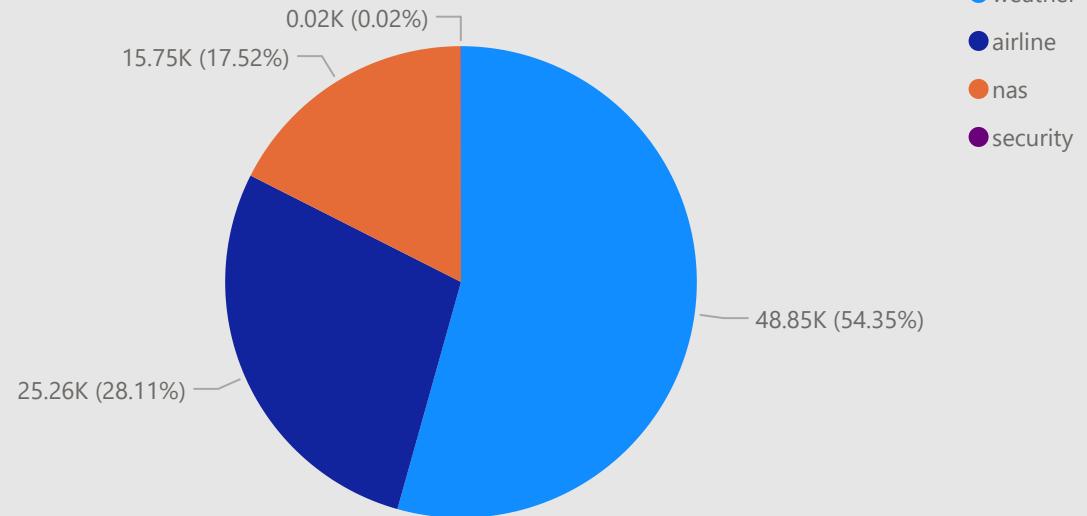


Cancellations

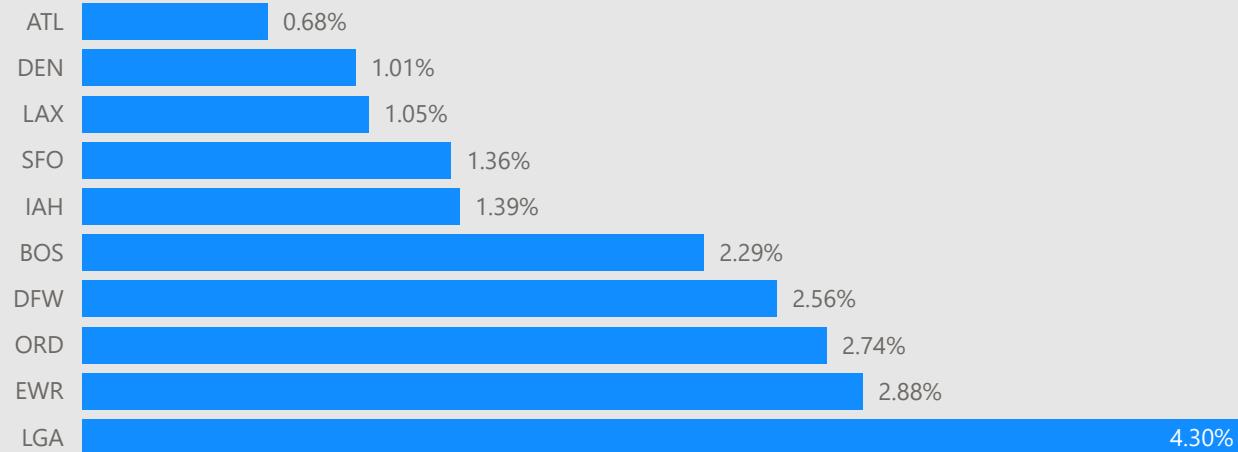
Cancellations by Airline



Cancellation Causes



Cancellation by Airport (Top 10)



Amount of Cancellations per Month



Flight Performance Overview

Flight Type X

Domestic

CANCELLED X

0

Flight category X

2. Medium Flight

Departure Delay ... X

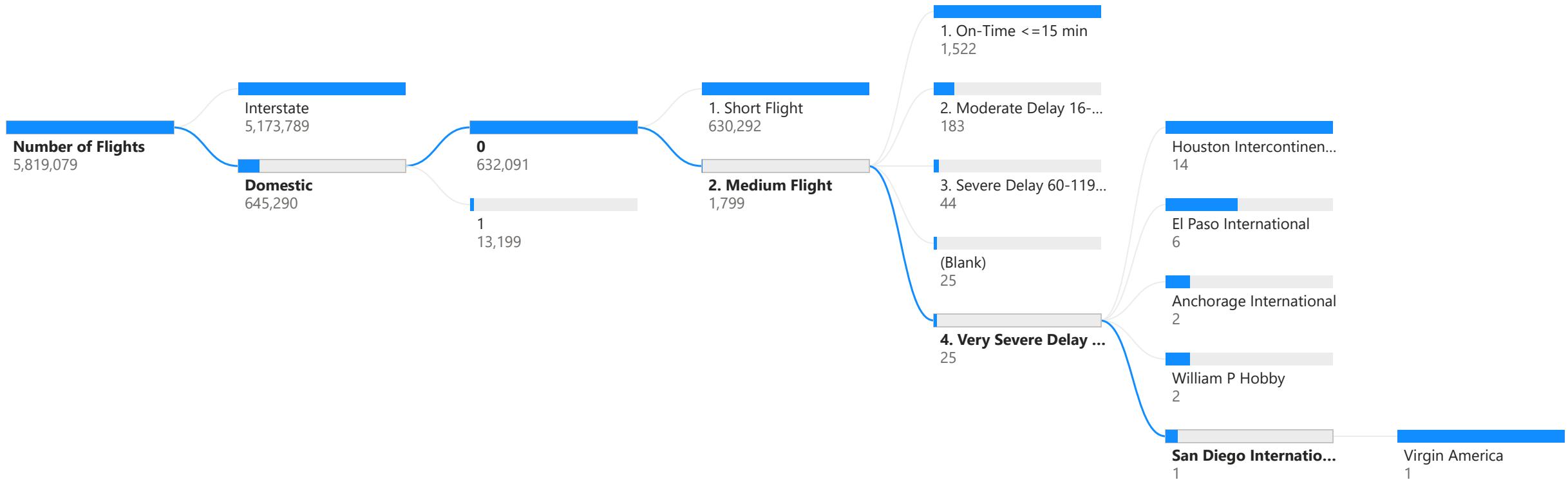
4. Very Severe Delay 1...

Airport X

San Diego Internation...

Airline X

Virgin America



Airline	Airline name
VX	Virgin America
US	US Airways Inc.
UA	United Air Lines Inc.
NK	Spirit Air Lines
WN	Southwest Airlines Co.
OO	Skywest Airlines Inc.
B6	JetBlue Airways
HA	Hawaiian Airlines Inc.
F9	Frontier Airlines Inc.
DL	Delta Air Lines Inc.
EV	Atlantic Southeast Airlines
MQ	American Eagle Airlines Inc.
AA	American Airlines Inc.
AS	Alaska Airlines Inc.