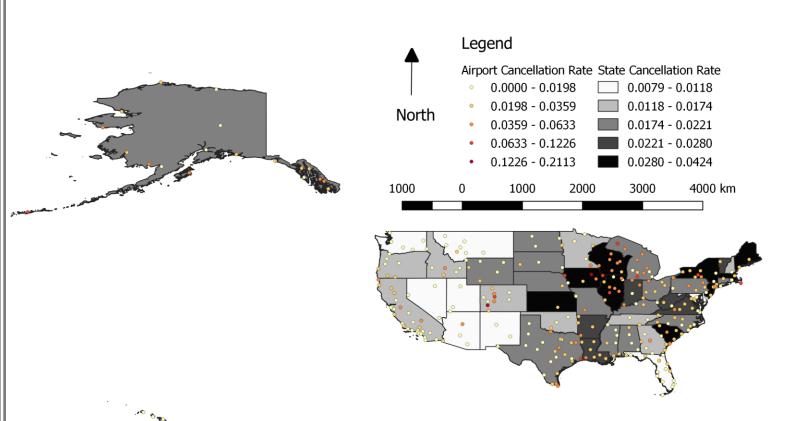
High- and Low-Cancellation Airport Clusters

Audience: airlines operating in the U.S.A

Jiachen Wei







Legend

Hot Spots by Number of Cancellations State Cancellation Rate

Cold Spot 90%

0.0079 - 0.0118

Insignificant

0.0118 - 0.0174

Hot Spot 90%

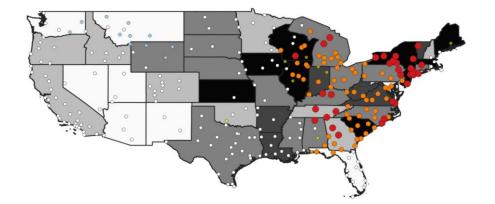
0.0174 - 0.0221

Hot Spot 95%

0.0221 - 0.0280

Hot Spot 99%

0.0280 - 0.0424



Hot Spot by Cancellation Rate State Cancellation Rate

Cold Spot 99%

0.0079 - 0.0118

Cold Spot 95%

0.0118 - 0.0174

Cold Spot 90%

0.0174 - 0.0221

Insignificant

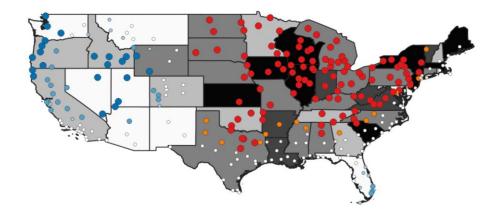
0.0221 - 0.0280

Hot Spot 90%

0.0280 - 0.0424

Hot Spot 95%

Hot Spot 99%



Hot spot: a high-cancellation airport that is surrounded by other high-cancellation airports Cold spot: a low-cancellation airport that is surrounded by other low-cancellation airports

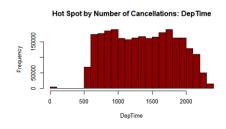
The Getis-Ord Gi* statistic: a single high value or low value is not significant (it might be an outlier).

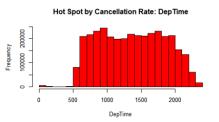
Histogram: Hot Spots vs Cold Spots

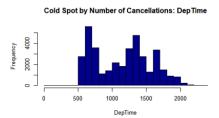
Histograms for Hot Spots and Cold Spots

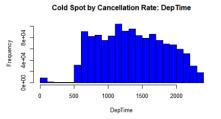
Enter the name of the column to be visualized:

DepTime





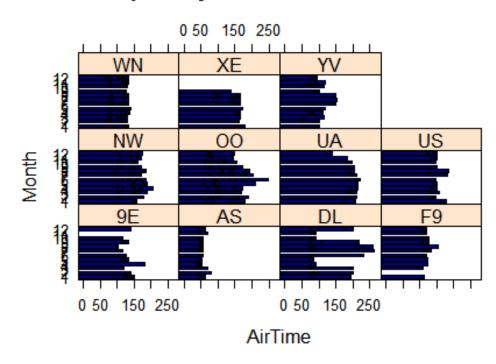


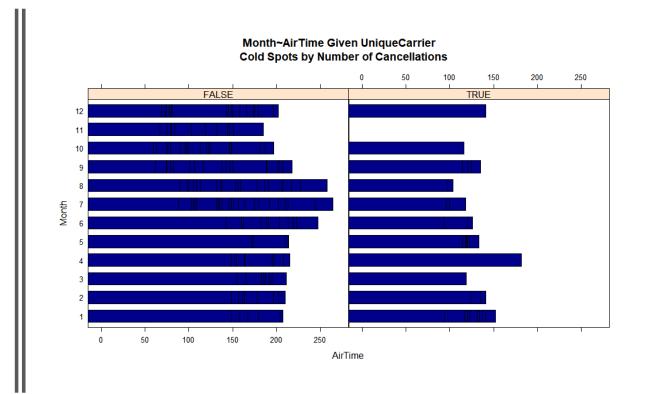


	HS by #	CS by #	HS by %	CS by %
Month		More flights May-Aug		Less flights Sept-Oct
DoW	Less fights on Sat		Less fights on Sat	
DepTime	↓ after 19	5-7am;	↓ after 19	↓ after 16
AirTime	Most <100	Most <150	Most <100	Most <150

Conditional Barplot: 9E vs others

Month~AirTime Given UniqueCarrier Cold Spots by Number of Cancellations





Thank you

Cancellation rate = sum(Cancelled) / sum(Number of Departures)

HotSpot Analysis in QGIS https://plugins.qgis.org/plugins/HotspotAnalysis/

U.S.A. Administrative Boundaries (GADM database)

http://www.diva-gis.org/datadown

