



# Berlin Brandenburg Airport: An Analysis Based on Survey Feedback

Punctionality of Budget and Premium Airlines

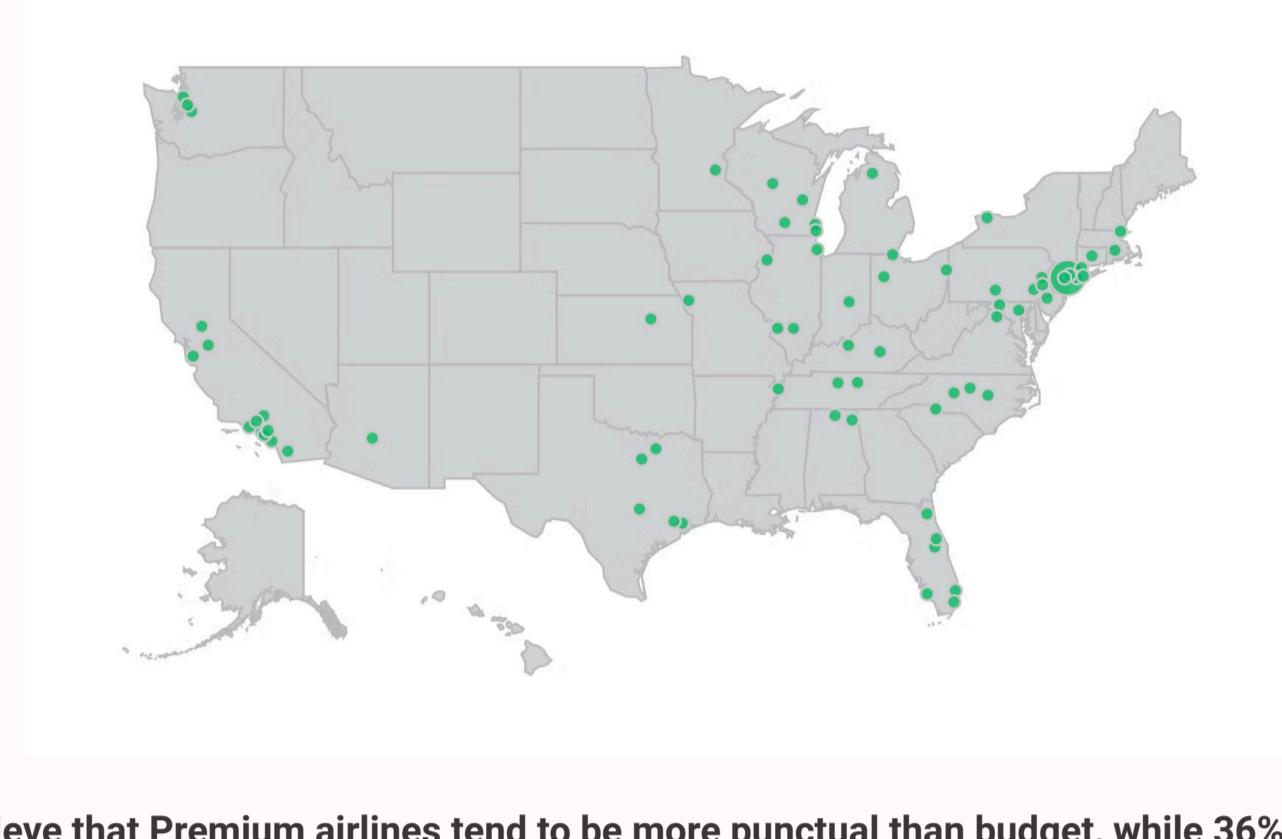
July 2024 A. Groenert, M. Zigmantas



# Survey Results

Conducted a survey with 113 respondents.

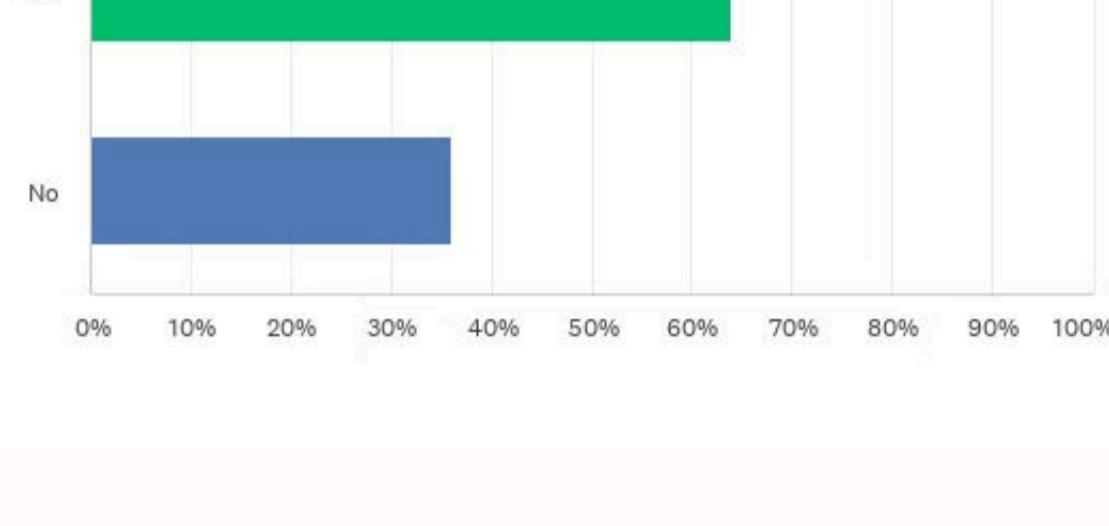
Gopika wins a Ferrari!



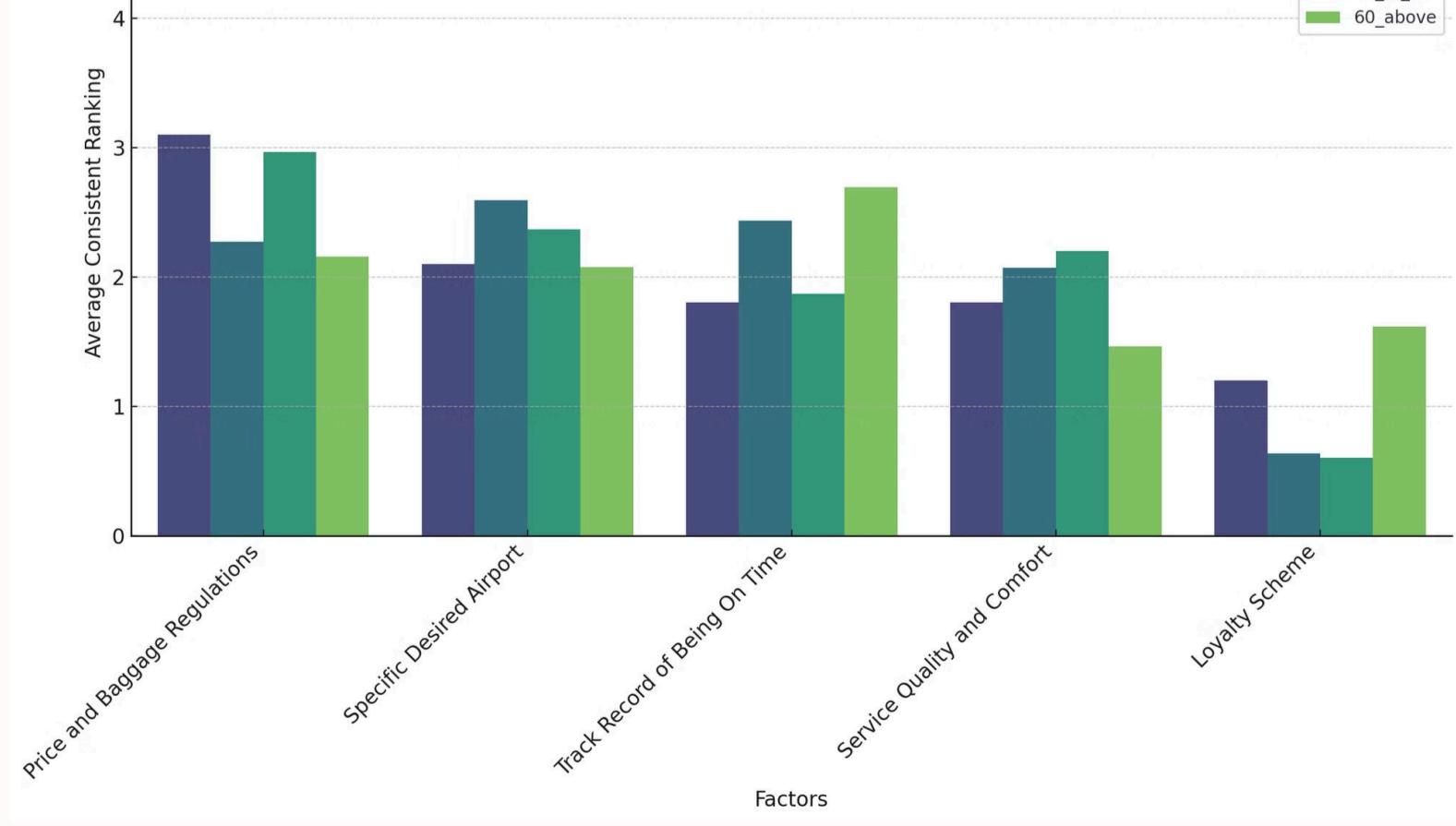
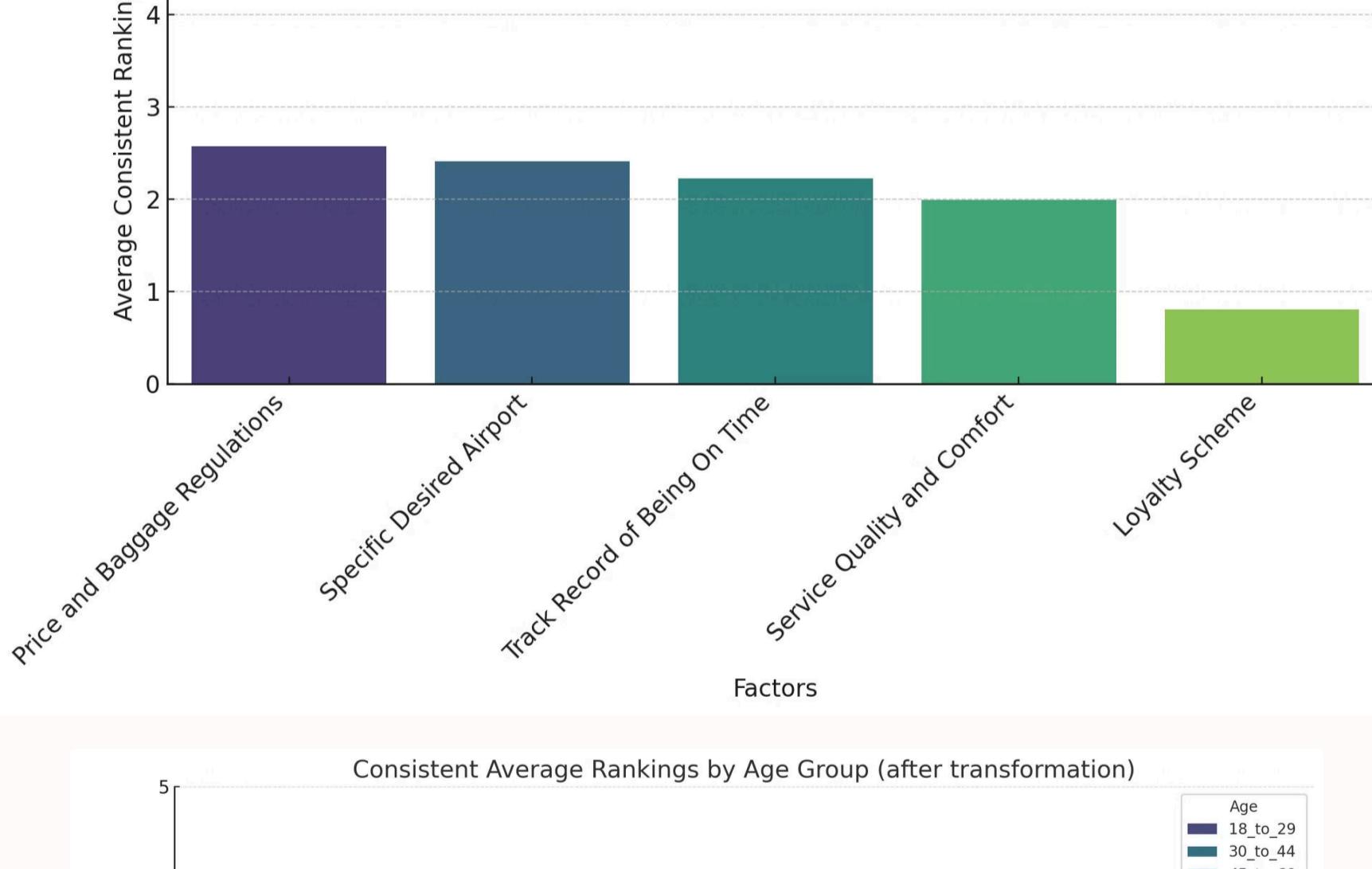
**64% of respondents believe that Premium airlines tend to be more punctual than budget, while 36% believe it to be false.**

\*We strived to survey as randomly as possible

**Q6 Do you believe premiums airlines tend to be more punctual when compared with budget airlines?**



## Further Survey Insights



# A Scientific and Statistical Approach

## Departures are more Important

\*Readers Digest, Go 4 Travel and real pilots

1. Weather conditions
2. Operational backlog

## The ideal Sample size

Margin of Error: 1.0% -> Required Sample Size: 9604

Margin of Error: 3.0% -> Required Sample Size: 1068

Margin of Error: 5.0% -> Required Sample Size: 385



# All the lost time

Total delays equate to the amount of 131,435 minutes which is over 91 days in a 20 day period

## Lets test the audience hypothesis

Our data for **arrivals** to Berlin airport show that:

*For budget airlines we are 95% confident that the proportion of on time arrivals is between 0.4712845111817415 and 0.5083365113423914 (**47%-50%**)*

*For premium airlines we are 95% confident that the proportion of on time arrivals is between 0.4786696822497994 and 0.5240055451445291 (**48%-52%**)*

Our data for **departures** (the better KPI) from Berlin airport show that:

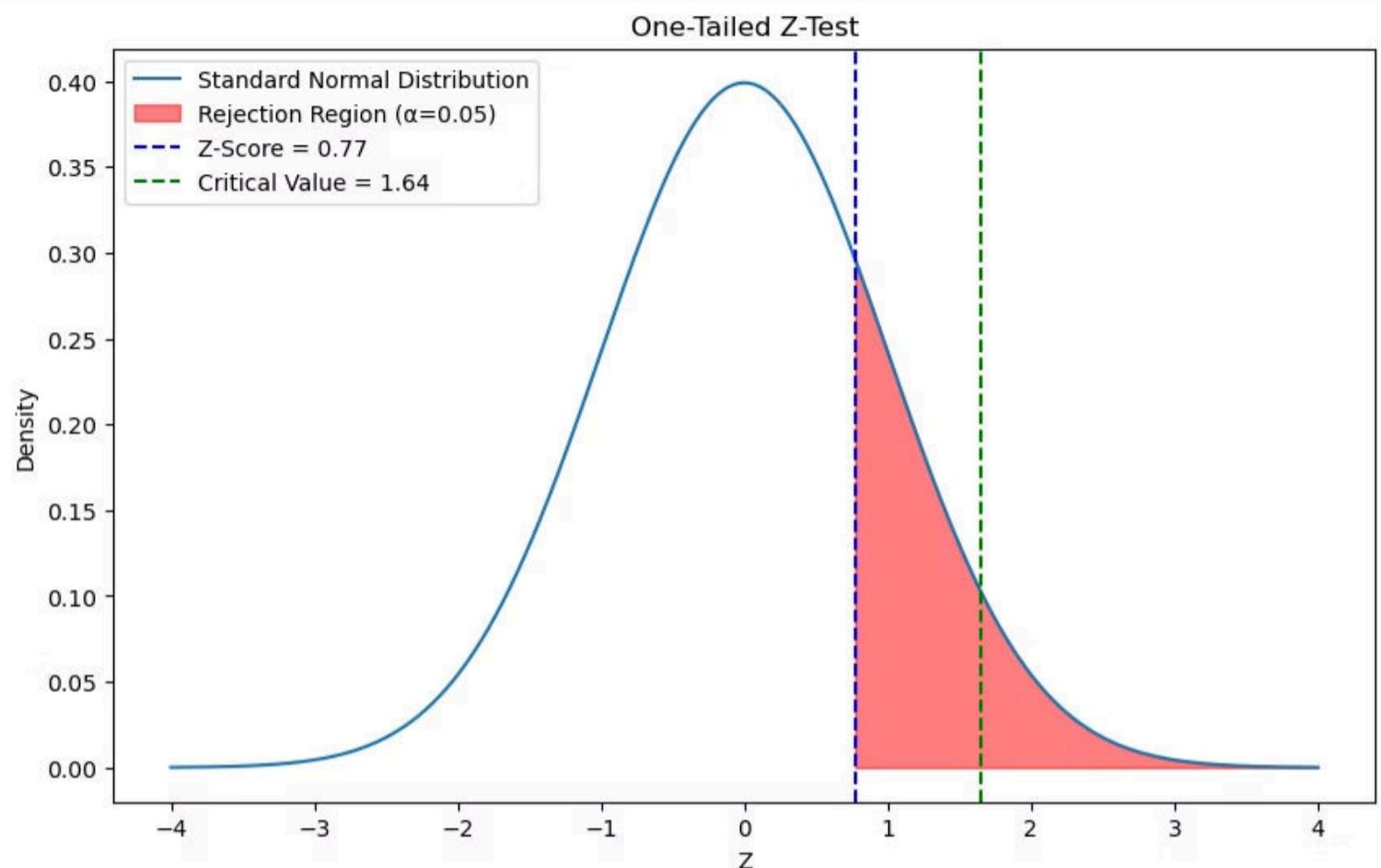
*For budget airlines we are 95% confident that the proportion of on time departures is between 0.7293784612755287 and 0.761339577253368 (**73%-77%**)*

*For premium airlines we are 95% confident that the proportion of on time departures is between 0.6727873823642274 and 0.7142584312218705 (**67%-71%**)*

# The Math:

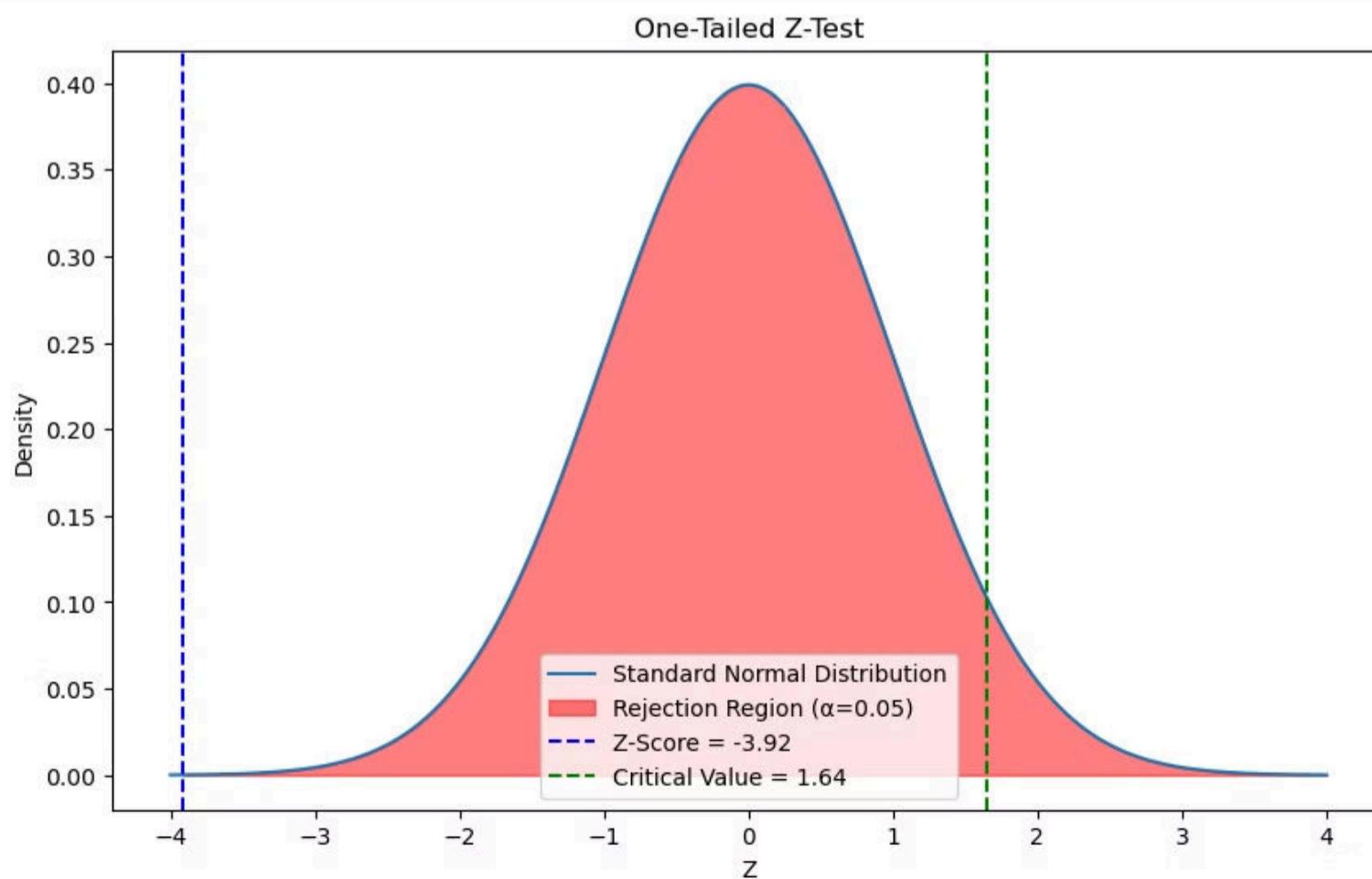
## Arrivals

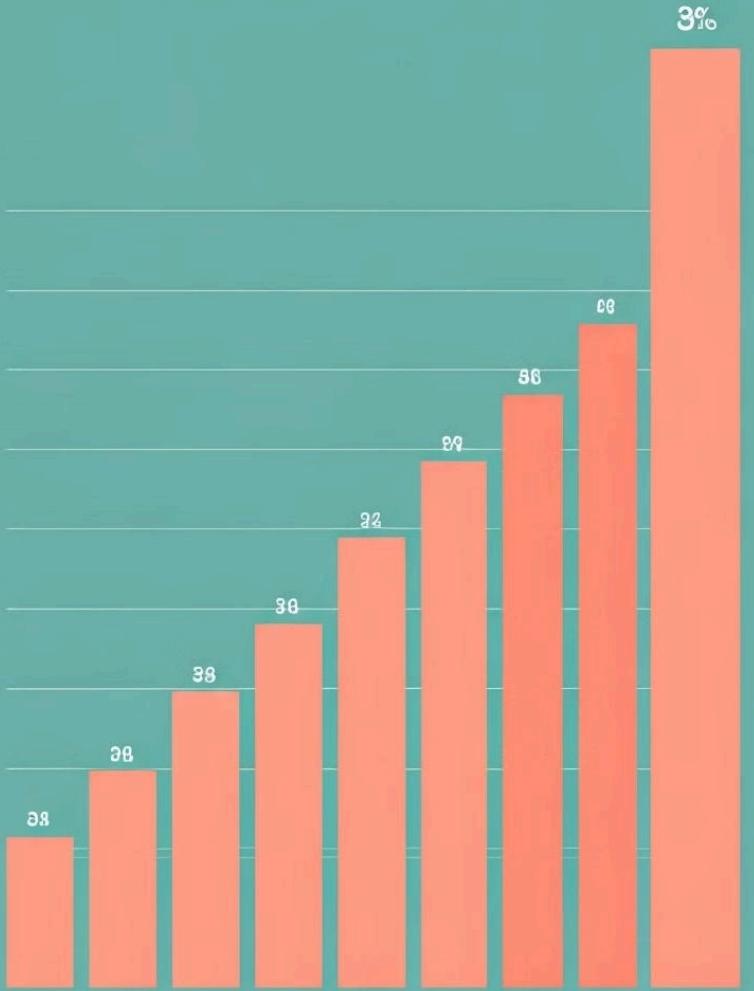
We fail to reject the null hypothesis: Premium airlines are not more punctual than budget airlines



## Departures

We fail to reject the null hypothesis: Premium airlines are not more punctual than budget airlines

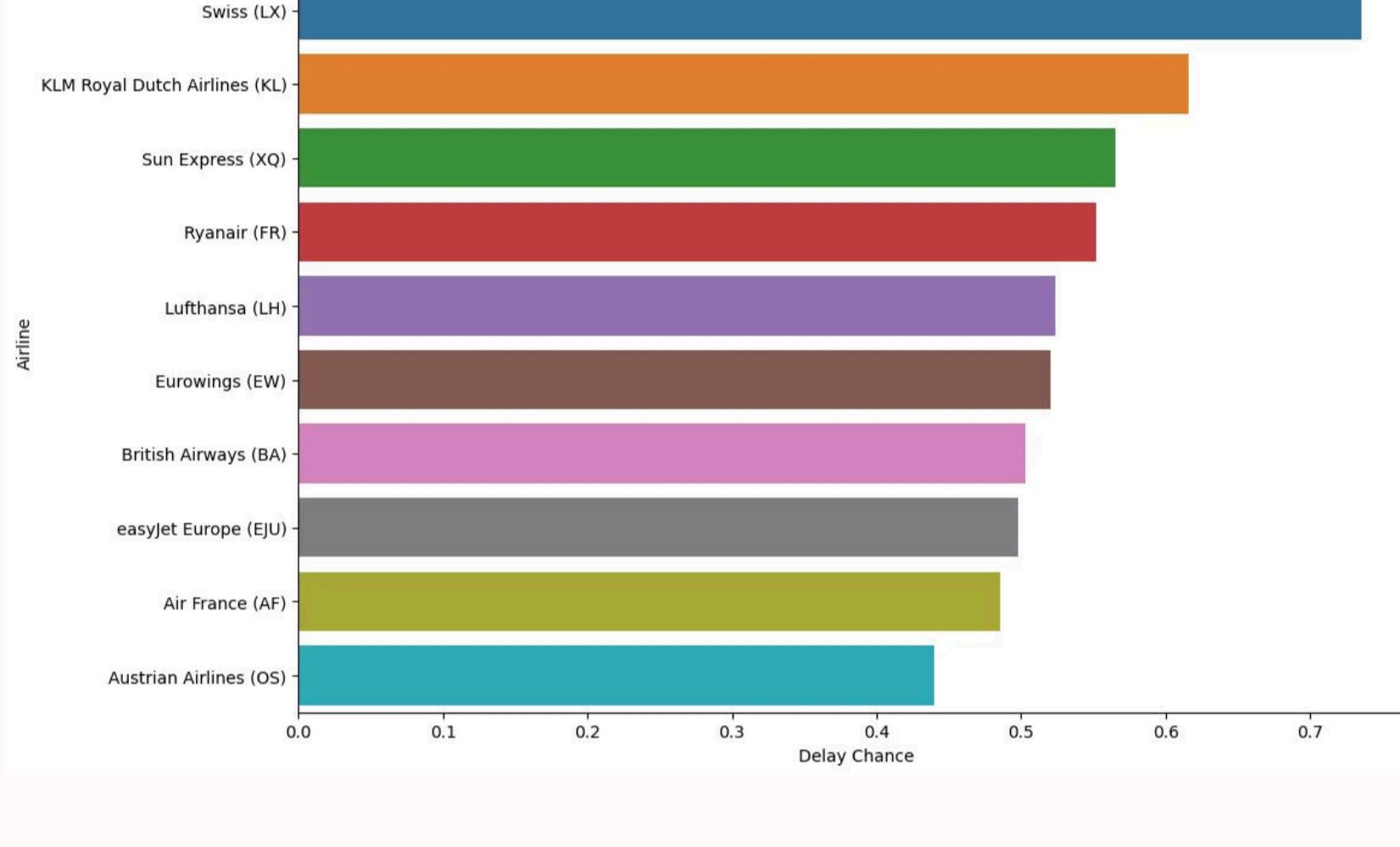
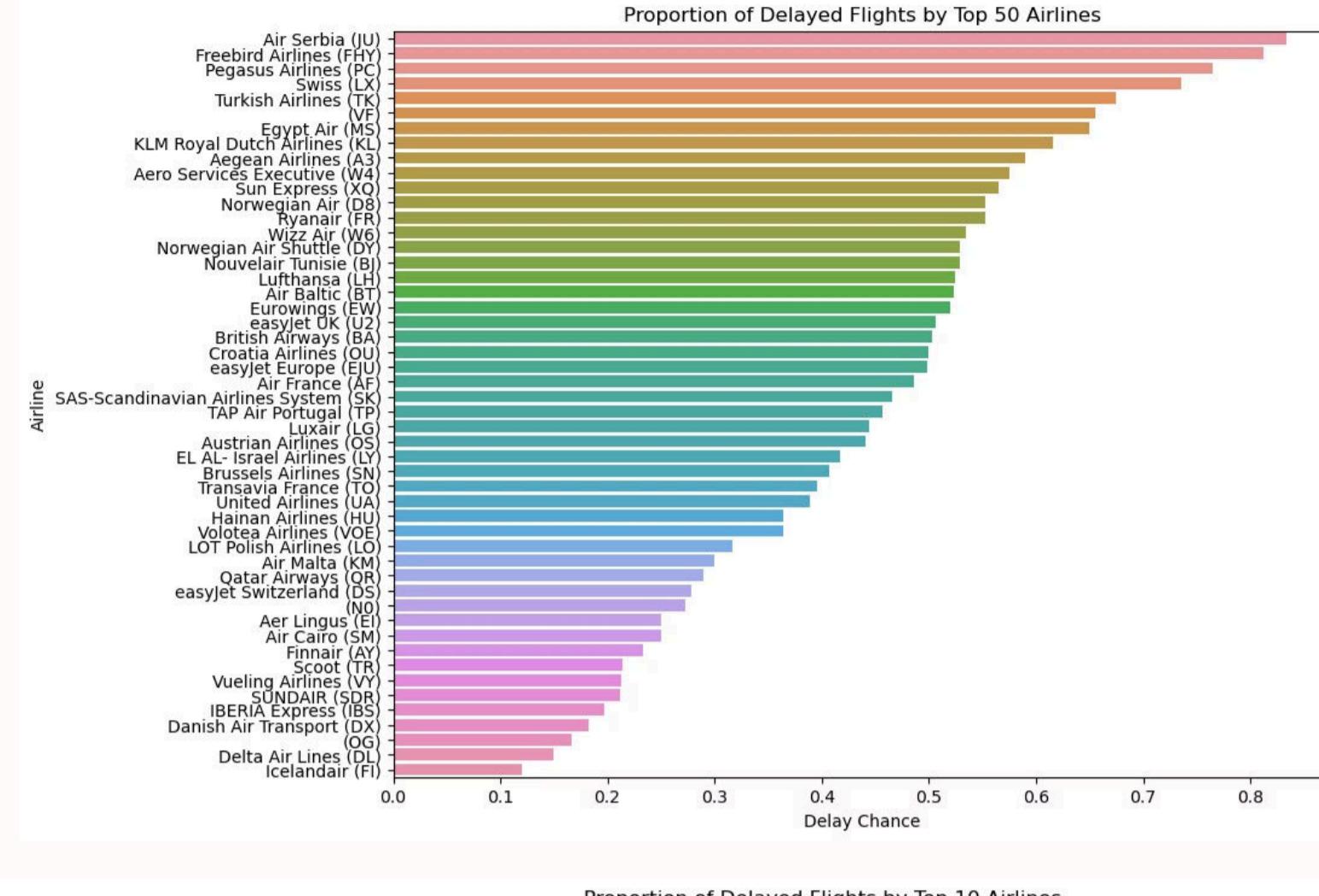




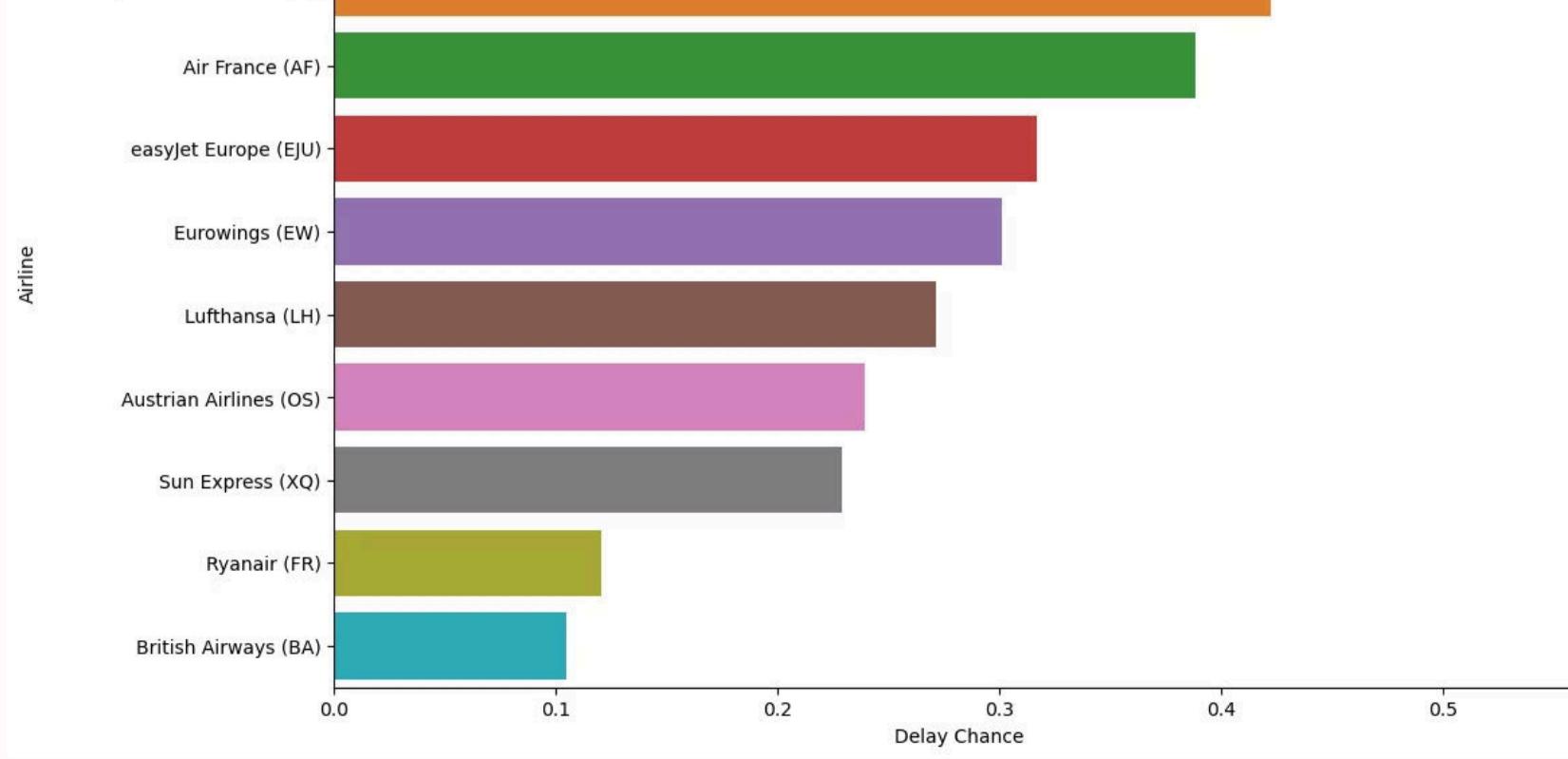
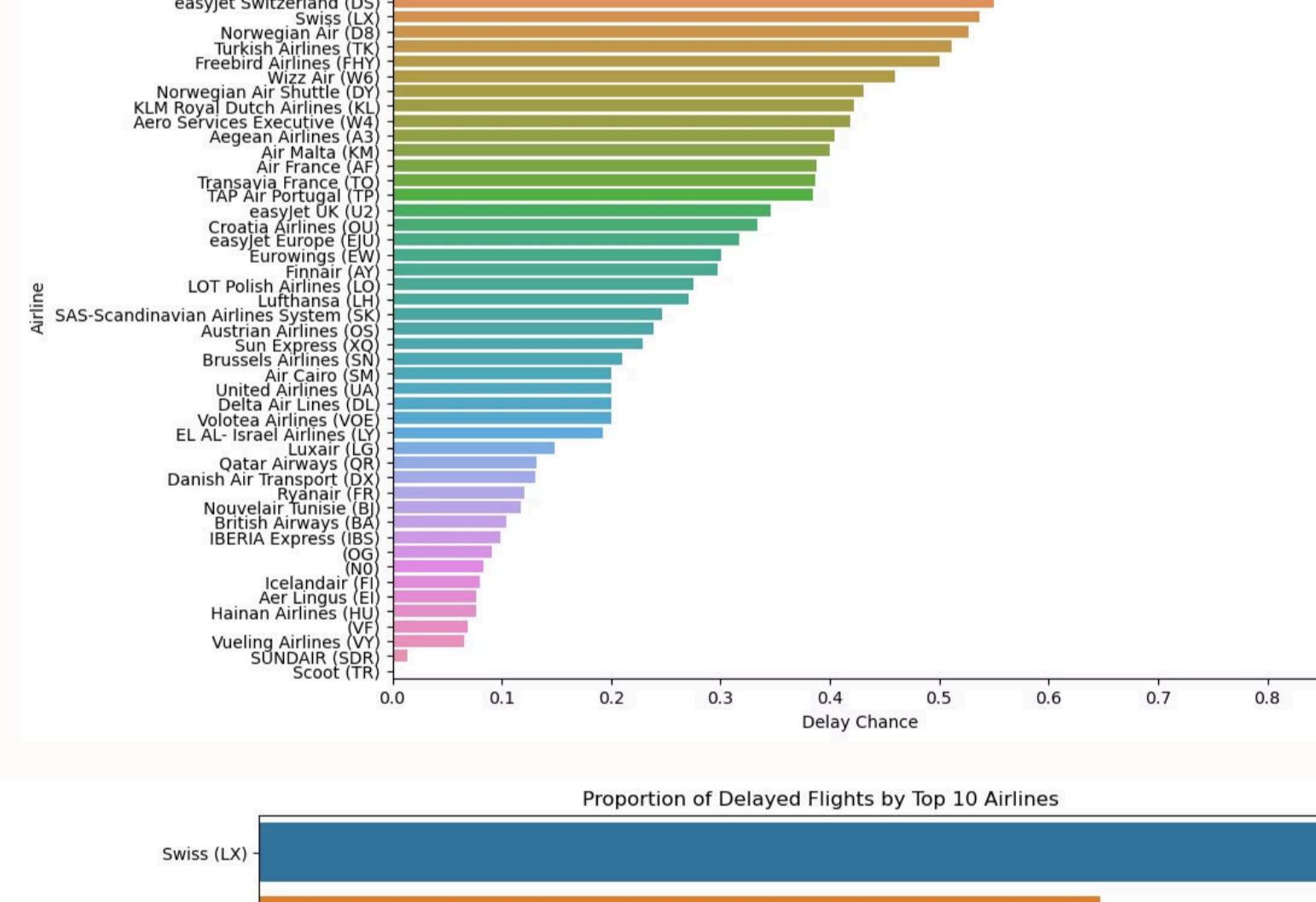
# Airline Performance Comparison

# Worst performing Airlines ranked by Volume:

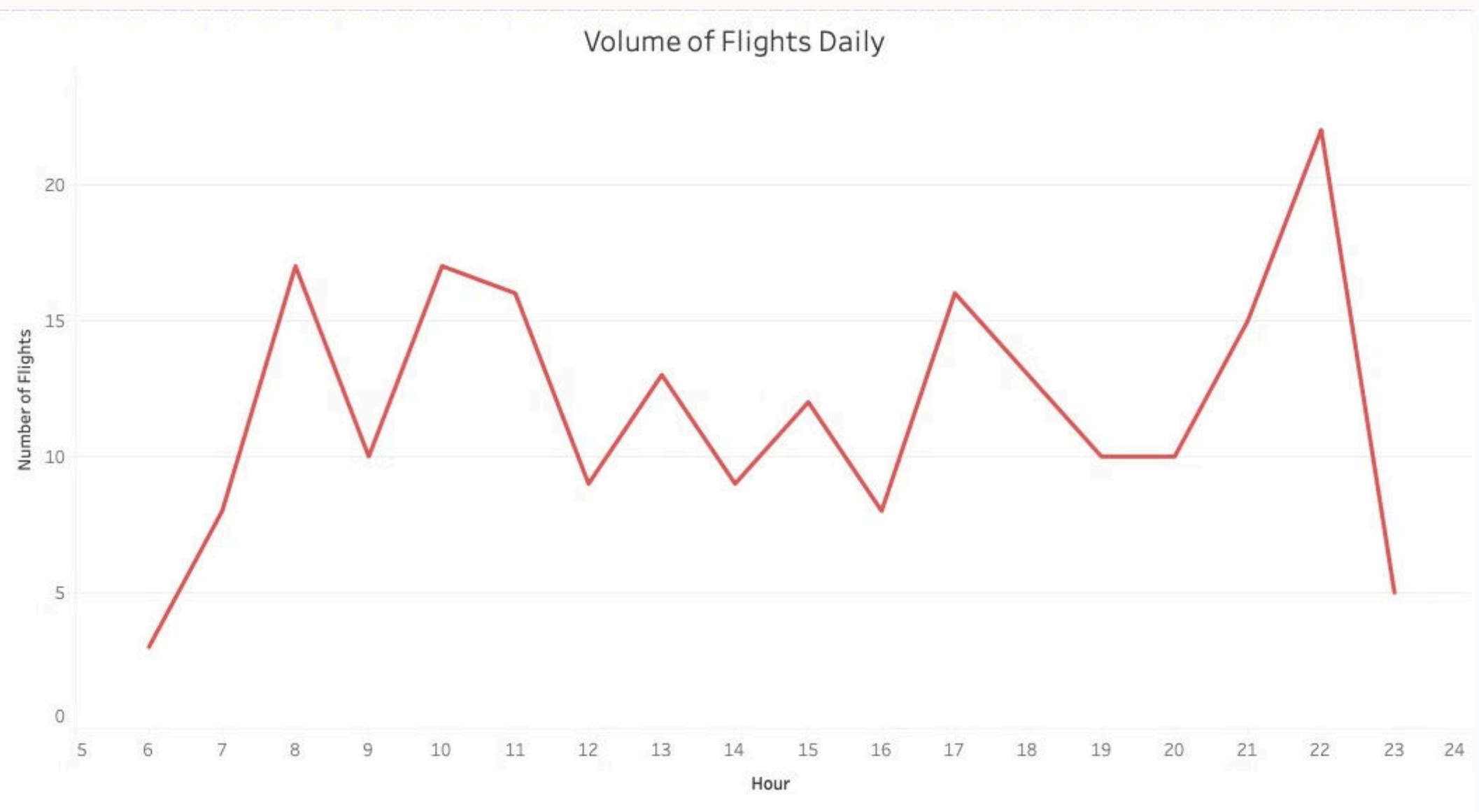
## Arrivals



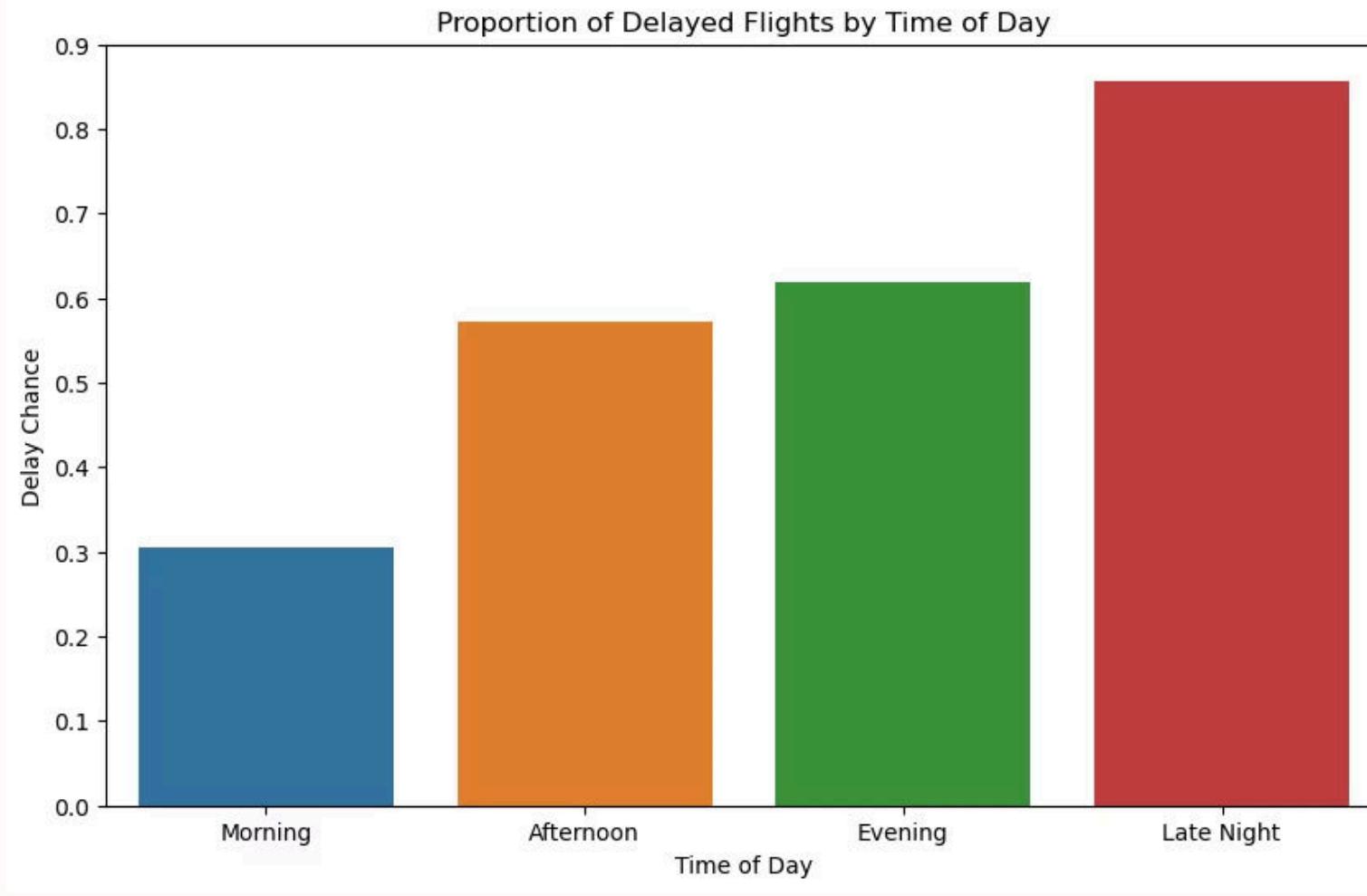
## Departures



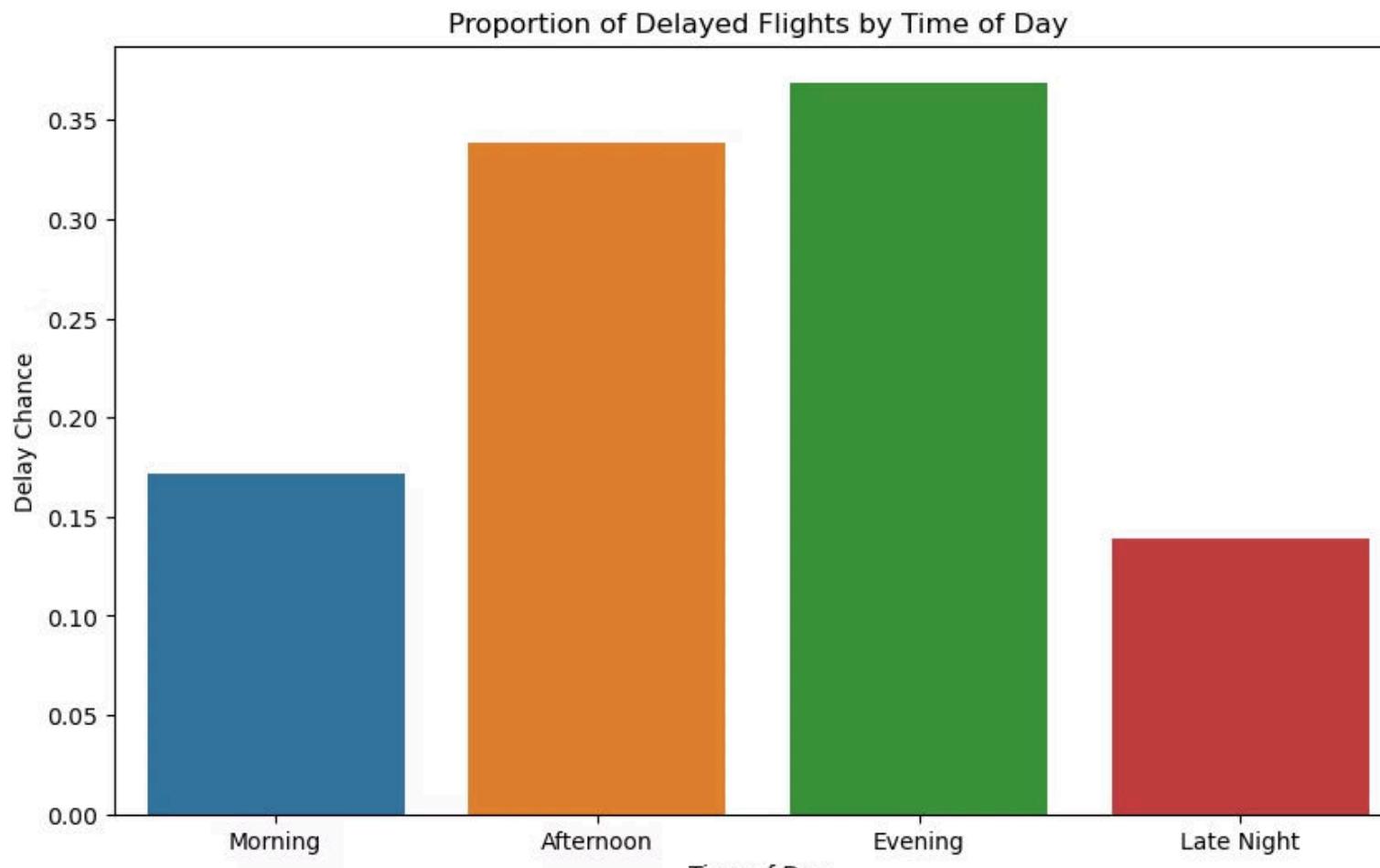
# Time of Day Factors:



## Arrivals



## Departures



# Further Development

Everything was coded to be modular. As long as our data structure remains unchanged this can be applied to any airport.

