

R Code for Examples in the book

"Statistics: The Art and Science of Learning from Data" by Agresti, Franklin and Klingenberg, 5th edition

Chapter 8

Example 11: Flight Departure Delays – Percentile Confidence Interval

Reading in the data

```
data <-
read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapte
r7/atl_departure_delay.csv')</pre>
```

To make 10,000 bootstrap samples and compute each sample mean

```
bootmean <- c()
for (i in 1:10000) {
  bootmean[i] <- mean(sample(data$minutes, replace = TRUE))
}</pre>
```

To obtain the 2.5th and 97.5th percentiles of the bootstrapped means

```
quantile(bootmean, c(0.025, 0.975))

## 2.5% 97.5%

## 62.8400 107.6547
```