



R Code for Examples in the book  
*"Statistics: The Art and Science of Learning from Data"*  
 by Agresti, Franklin and Klingenberg, 5<sup>th</sup> edition

## Chapter 8

### Example 12: Median Departure Delay – Confidence Interval for a Median

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#### Reading in the data

```
data <-  
read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapter7/atl_departure_delay.csv')
```

#### To make 10,000 bootstrap samples and compute median of each sample

```
bootmedian <- c()  
for (i in 1:10000) {  
  bootmedian[i] <- median(sample(data$minutes, replace = TRUE))  
}
```

#### To obtain the 2.5th and 97.5th percentiles of the bootstrapped medians

```
quantile(bootmedian, c(0.025, 0.975))  
  
## 2.5% 97.5%  
## 30 64
```