



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 2

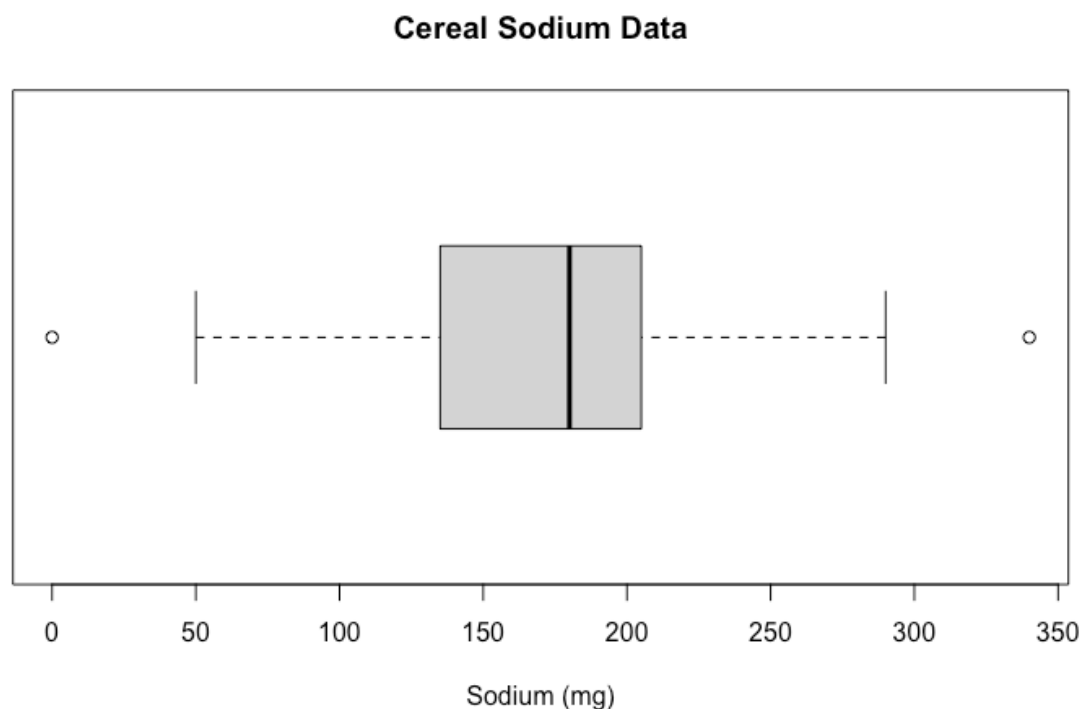
### Example 16: Cereal Sodium Data – Boxplot

Read in Sodium values:

```
sodium <- c(0, 340, 70, 140, 200, 180, 210, 150, 100, 130, 140, 180, 190,  
160, 290, 50, 220, 180, 200, 210)
```

Basic Box Plot

```
boxplot(sodium, horizontal = TRUE,  
        main = 'Cereal Sodium Data',  
        xlab = 'Sodium (mg)')
```



A better-looking box plot can be obtained with the ggplot2 library. To install it, type `install.packages('ggplot2')`.

```
library(ggplot2)
ggplot(data.frame(sodium), aes(x='', y=sodium)) +
  geom_boxplot(width = 0.3, fill = 'tan') +
  coord_flip() +
  labs(x = '', y = 'Sodium (mg)',
       title = 'Box Plot of Cereal Sodium Data') +
  theme_classic() +
  scale_y_continuous(limits = c(-20, 420),
                    breaks = seq(0, 400, 50),
                    expand = c(0, 0)) +
  theme(axis.line.y = element_blank(),
        axis.text.y = element_blank(),
        axis.ticks.y = element_blank(),
        axis.title.y = element_blank())
```

Box Plot of Cereal Sodium Data

