Evelyn Pan

```r
# first download the mowateR_0.2.tar.gz file then uncomment and run the following:
#install.packages("mowateR_0.2.tar.gz", repos = NULL, type = "source")
library(mowateR)
library(lubridate)

setwd("/Users/evelynpan/Desktop")
data <- read.csv(file="WACODE23.csv",
                 header = T, stringsAsFactors = F)

data
#                      State Year Murder Rape Robbery Aggravated_assault Burglary
# 1                  Alabama 2016     0%   1%      3%                11%      20%
# 2                   Alaska 2016     0%   3%      3%                13%      13%
# 3                  Arizona 2016     0%   1%      3%                 9%      16%
# 4                 Arkansas 2016     0%   2%      2%                11%      21%
# 5               California 2016     0%   1%      5%                 9%      16%
# 6                 Colorado 2016     0%   2%      2%                 7%      14%
# 7              Connecticut 2016     0%   1%      4%                 6%      14%
# 8                 Delaware 2016     0%   1%      4%                10%      16%
# 9     District of Columbia 2016     0%   1%      9%                10%       6%
# 10                 Florida 2016     0%   1%      3%                 9%      16%
# 11                 Georgia 2016     0%   1%      3%                 7%      18%
# 12                  Hawaii 2016     0%   1%      2%                 6%      13%
# 13                   Idaho 2016     0%   2%      1%                 9%      19%
# 14                Illinois 2016     0%   2%      6%                10%      15%
# 15                 Indiana 2016     0%   1%      4%                 8%      17%
# 16                    Iowa 2016     0%   2%      1%                 9%      20%
# 17                  Kansas 2016     0%   1%      2%                 9%      16%
# 18                Kentucky 2016     0%   1%      3%                 5%      19%
# 19               Louisiana 2016     0%   1%      3%                10%      19%
# 20                   Maine 2016     0%   2%      1%                 4%      17%
# 21                Maryland 2016     0%   1%      6%                10%      15%
# 22           Massachusetts 2016     0%   2%      4%                14%      14%
# 23                Michigan 2016     0%   3%      3%                13%      10%
# 24               Minnesota 2016     0%   2%      3%                 5%      14%
# 25             Mississippi 2016     0%   1%      3%                 5%      26%
# 26                Missouri 2016     0%   1%      3%                11%      16%
# 27                 Montana 2016     0%   2%      1%                 9%      12%
# 28                Nebraska 2016     0%   2%      2%                 7%      13%
# 29                  Nevada 2016     0%   2%      6%                12%      20%
# 30           New Hampshire 2016     0%   2%      2%                 7%      13%
# 31              New Jersey 2016     0%   1%      6%                 7%      16%
# 32              New Mexico 2016     0%   1%      3%                11%      18%
# 33                New York 2016     0%   2%      6%                12%      10%
# 34          North Carolina 2016     0%   1%      3%                 8%      23%
# 35            North Dakota 2016     0%   2%      1%                 7%      17%
# 36                    Ohio 2016     0%   1%      4%                 5%      20%
# 37                Oklahoma 2016     0%   2%      2%                 9%      22%
# 38                  Oregon 2016     0%   1%      2%                 5%      13%
# 39            Pennsylvania 2016     0%   2%      5%                 9%      13%
# 40            Rhode Island 2016     0%   2%      2%                 7%      17%
# 41          South Carolina 2016     0%   1%      2%                10%      18%
```

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# 42         South Dakota 2016    0%   3%    1%            14%   14%
# 43           Tennessee 2016     0%   2%    3%            14%   15%
# 44               Texas 2016     0%   1%    4%             8%   17%
# 45                Utah 2016     0%   1%    2%             4%   13%
# 46             Vermont 2016     0%   2%    1%             6%   18%
# 47            Virginia 2016     0%   2%    3%             6%   11%
# 48          Washington 2016     0%   1%    2%             5%   18%
# 49       West Virginia 2016     0%   1%    2%            12%   21%
# 50           Wisconsin 2016     0%   1%    4%             8%   15%
# 51             Wyoming 2016     0%   2%    0%             9%   14%
#     Larceny_theft Motor_Vehicle_theft
# 1            58%                 7%
# 2            58%                10%
# 3            63%                 8%
# 4            58%                 6%
# 5            54%                15%
# 6            63%                12%
# 7            65%                10%
# 8            64%                 5%
# 9            67%                 7%
# 10           64%                 7%
# 11           63%                 8%
# 12           66%                12%
# 13           63%                 6%
# 14           61%                 6%
# 15           62%                 8%
# 16           61%                 7%
# 17           64%                 8%
# 18           62%                 9%
# 19           61%                 6%
# 20           73%                 3%
# 21           61%                 7%
# 22           60%                 6%
# 23           55%                 9%
# 24           69%                 7%
# 25           60%                 5%
# 26           60%                 9%
# 27           67%                 9%
# 28           66%                10%
# 29           46%                14%
# 30           72%                 4%
# 31           63%                 7%
# 32           55%                12%
# 33           66%                 4%
# 34           60%                 5%
# 35           63%                10%
# 36           64%                 6%
# 37           56%                 9%
# 38           69%                10%
# 39           66%                 5%
# 40           65%                 7%
# 41           61%                 8%
# 42           61%                 7%
```
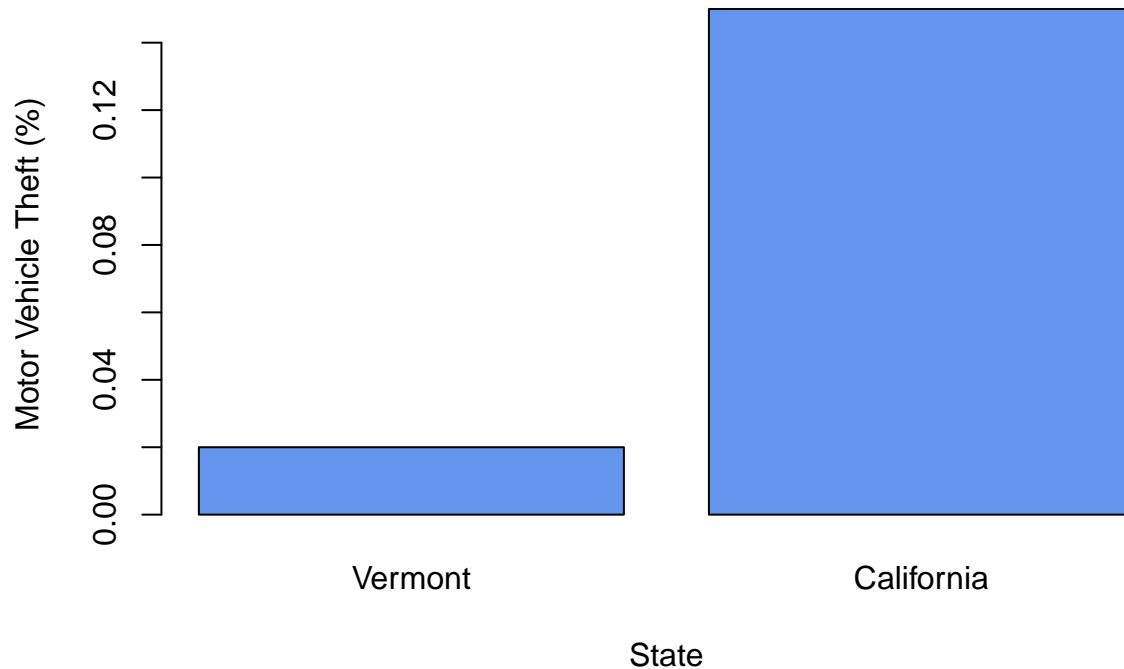
```
# 43              58%                8%
# 44              62%                8%
# 45              70%               10%
# 46              71%                2%
# 47              72%                6%
# 48              62%               12%
# 49              58%                6%
# 50              64%                8%
# 51              69%                6%
```

```r
# Create a vector of values
motor <- c(0.02, 0.15)

# Create a horizontal barplot with customized options
barplot(motor,
        names.arg = c("Vermont", "California"),
        xlab = "State",
        ylab = "Motor Vehicle Theft (%)",
        main = "Least v.s. Highest Motor Vehicle Thefts (U.S)",
        col = "cornflowerblue")
```

Least v.s. Highest Motor Vehicle Thefts (U.S)


```r
# Create a vector of values
robbery <- c(0.00, 0.09)
```

```
# Create a horizontal barplot with customized options
barplot(robbery,
        names.arg = c("Wyoming", "District of Columbia"),
        xlab = "State",
        ylab = "Robbery (%)",
        main = "Least v.s. Most Robberies (U.S)",
        col = "darkslateblue")
```

Least v.s. Most Robberies (U.S)
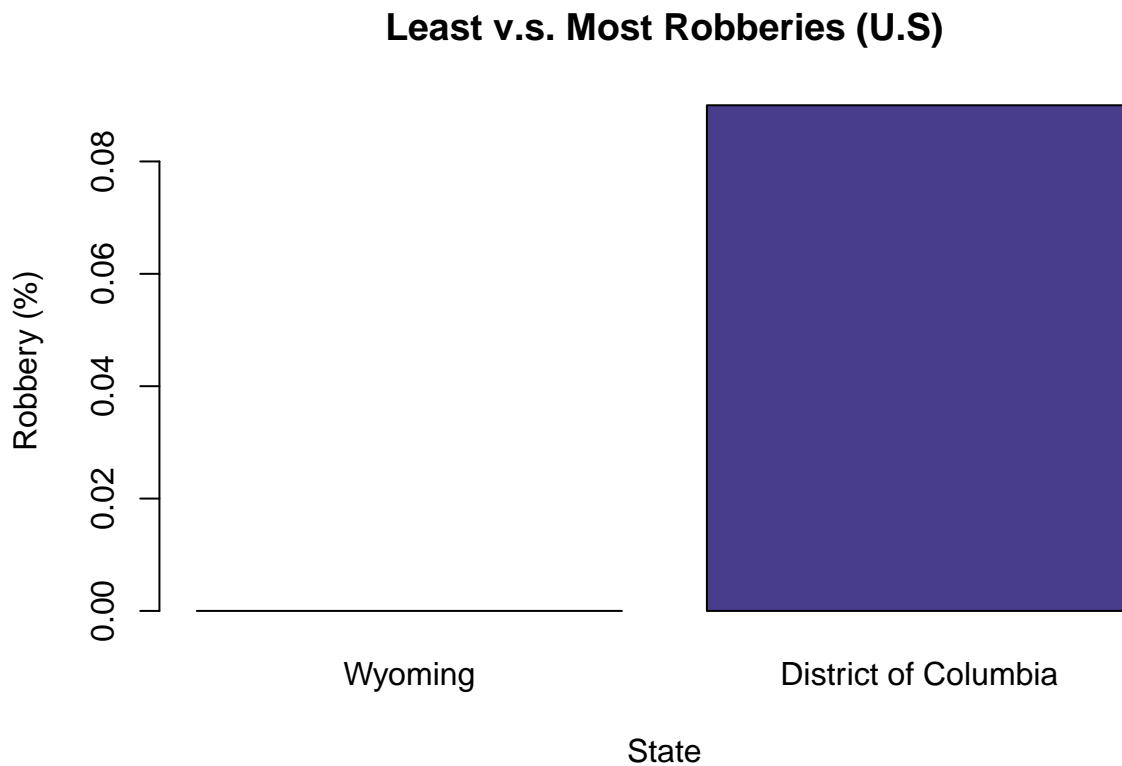

```
assault <- c(0.04, 0.04, 0.14, 0.14)

# Basic scatterplot
barplot(assault, names.arg = c("Maine", "Utah", "Massachusetts", "South Dakota"),
    xlab = "States", ylab = "Aggravated Assaults (%)", main = "Least v.s. Highest Aggravated Assaults
    col = "cadetblue1")
```
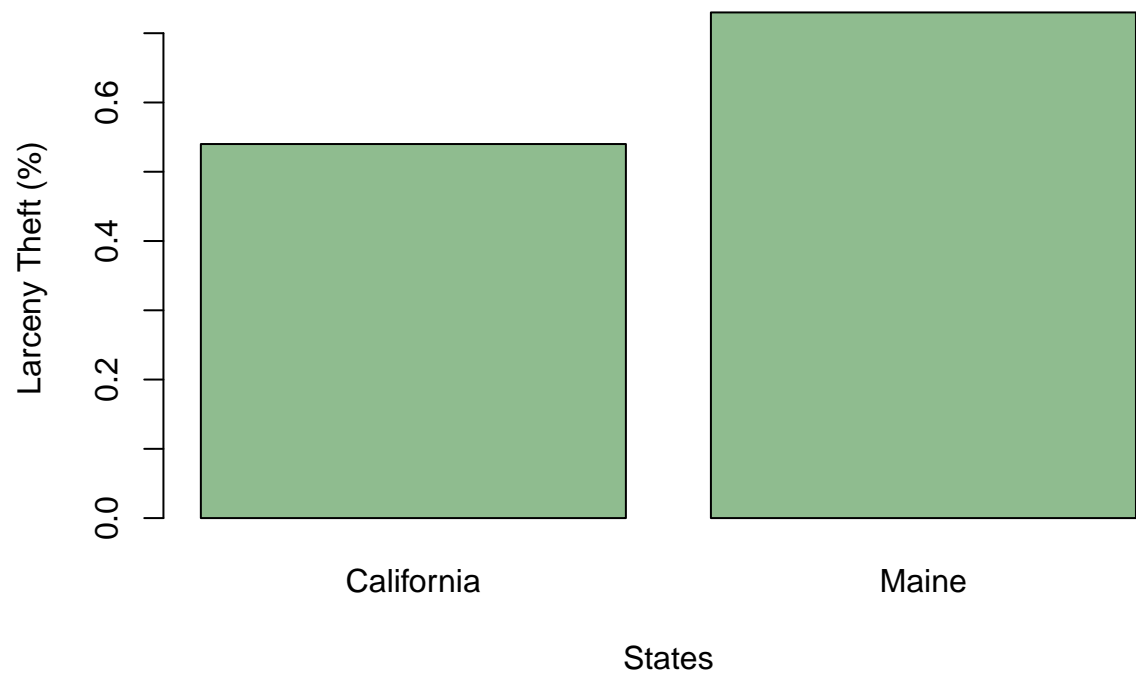
Least v.s. Highest Aggravated Assaults (U.S)

Aggravated Assaults (%)

Maine   Utah   Massachusetts   South Dakota
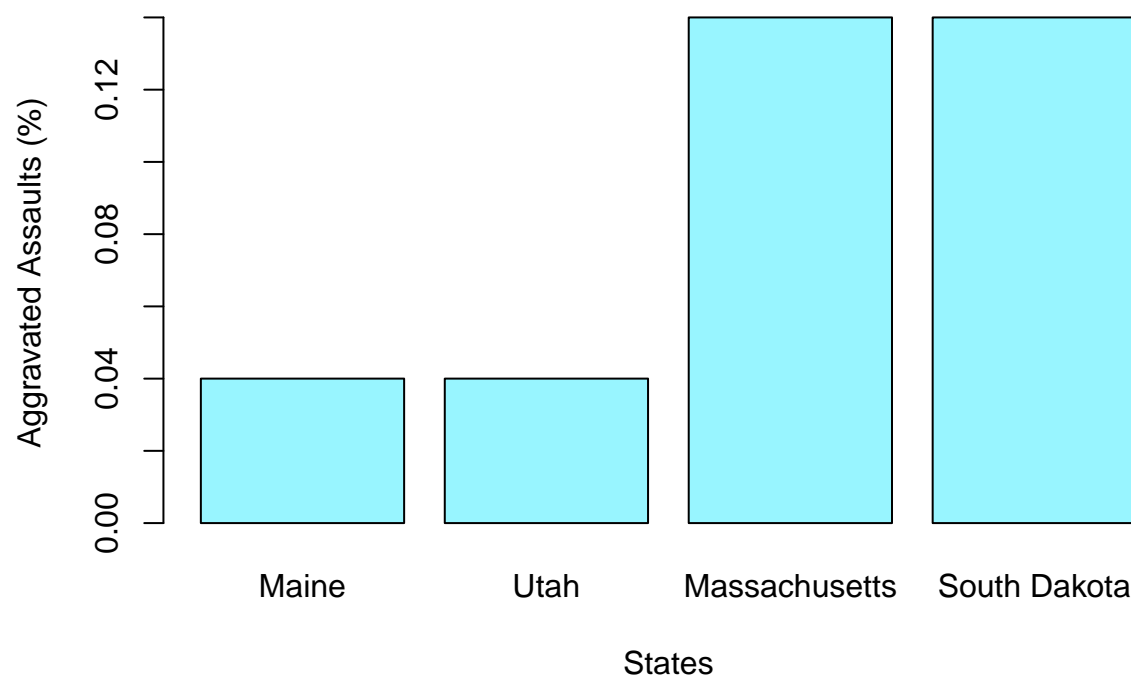
States

```r
larceny <- c(0.54, 0.73)

# Basic scatterplot
barplot(larceny, names.arg = c("California", "Maine"),
    xlab = "States", ylab = "Larceny Theft (%)", main = "Least v.s. Highest Larceny Thefts (U.S)",
    col = "darkseagreen")
```

Least v.s. Highest Larceny Thefts (U.S)

Thank you