Evelyn Pan

```
# 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%
```
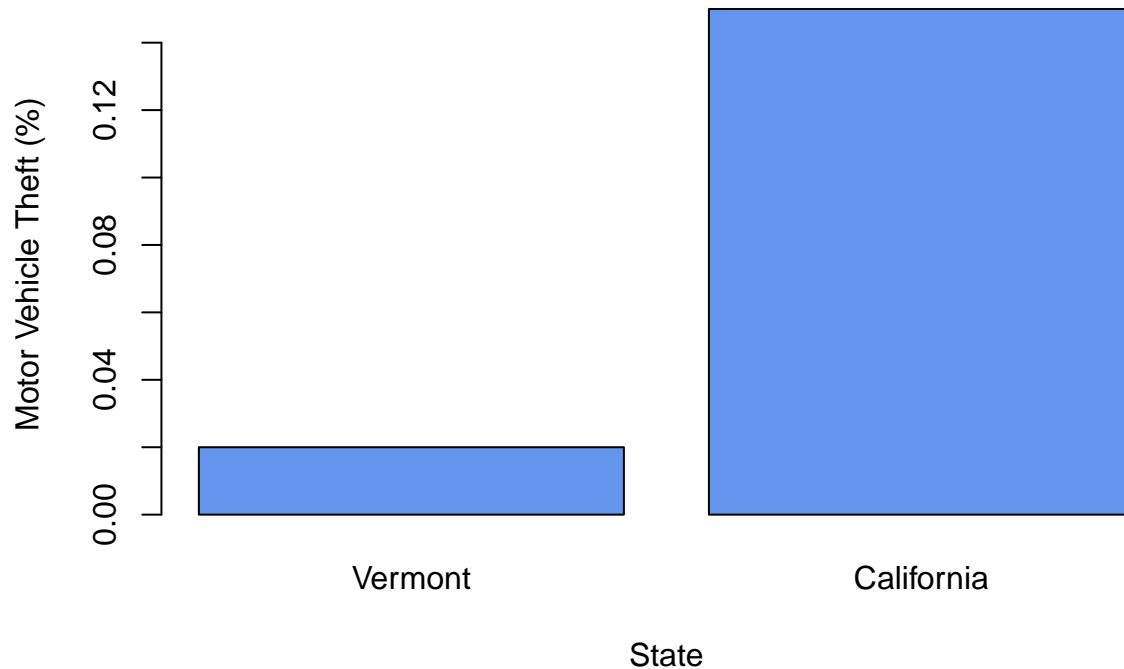
```
# 43            58%                8%
# 44            62%                8%
# 45            70%               10%
# 46            71%                2%
# 47            72%                6%
# 48            62%               12%
# 49            58%                6%
# 50            64%                8%
# 51            69%                6%
```
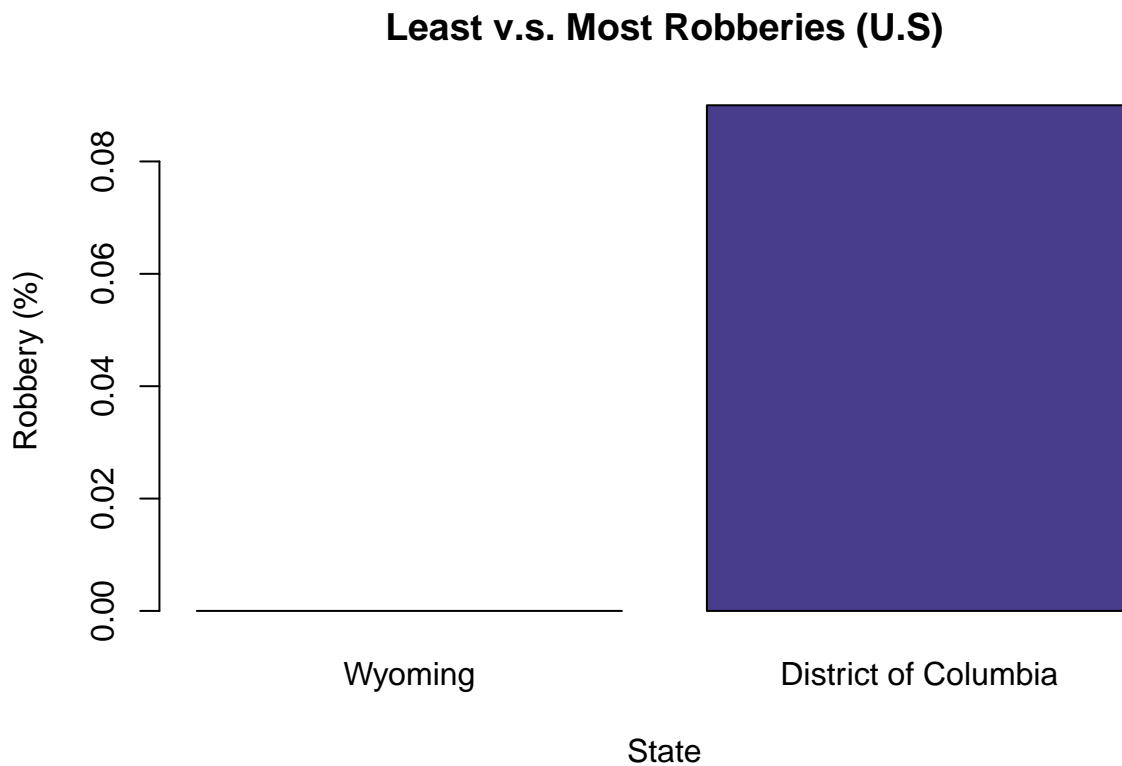
```r
# Create a vector of values
motor <- c(0.02, 0.15)

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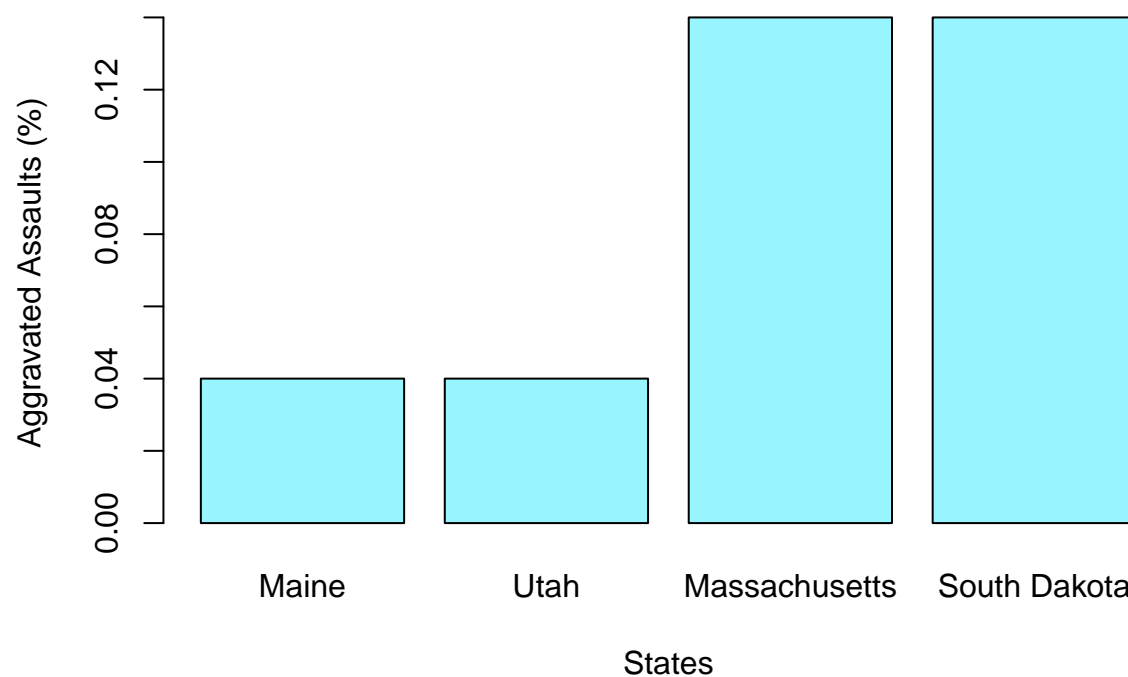
```
# Create a horizontal barplot with customized options
barplot(robbery,
        names.arg = c("Wyoming", "District of Columbia"),
        xlab = "State",
        ylab = "Robbery (%)",
        main = "Least v.s. Most Robberies (U.S)",
        col = "darkslateblue")
```

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

```
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)