R Charts

Datasets

Hotdog Contest Winners

```
# A tibble: 6 x 5
   Year Winner                     Dogs_eaten Country       New_record
  <dbl> <chr>                           <dbl> <chr>              <dbl>
1  1980 Paul Siederman & Joe Baldini      9.1 United States         0
2  1981 Thomas DeBerry                   11   United States         0
3  1982 Steven Abrams                    11   United States         0
4  1983 Luis Llamas                      19.5 Mexico                0
5  1984 Birgit Felden                     9.5 Germany               0
6  1985 Oscar Rodriguez                  11.8 United States         0
```

Obama Approval Ratings

```
# A tibble: 6 x 4
  Issue          Approve Disapprove  None
  <chr>            <dbl>      <dbl> <dbl>
1 Race Relations      52         38    10
2 Education           49         40    11
3 Terrorism           48         45     7
4 Energy Policy       47         42    11
5 Foreign Affairs     44         48     8
6 Environment         43         51     6
```
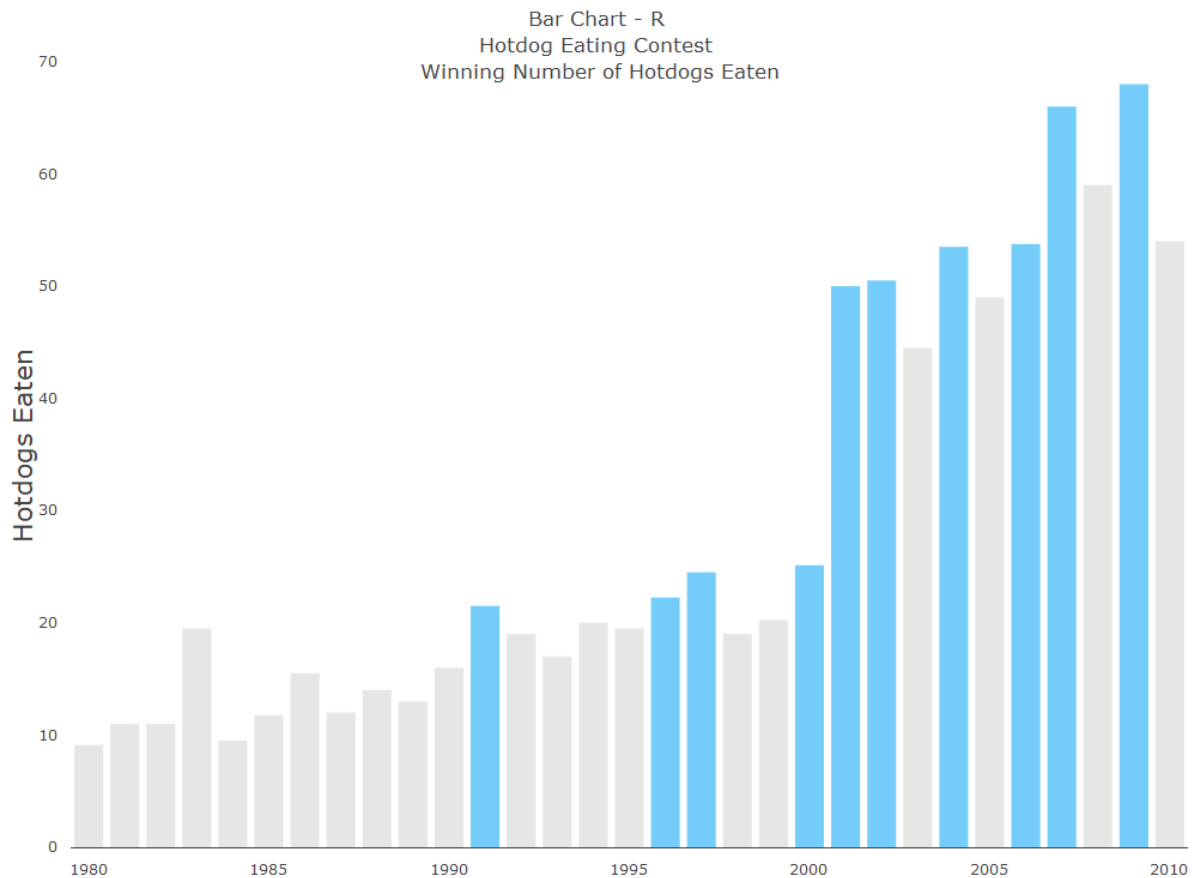
Charts

1. Bar Chart

```r
# Highlight record years with color
fill_colors <- c()

for ( i in 1:length(hotdog_winners_df$New_record) ) {
    if (hotdog_winners_df$New_record[i] == 1) {
        fill_colors <- c(fill_colors, "#74cdf9")
    } else {
        fill_colors <- c(fill_colors, "#e5e7e4")
    }
}

fig <- plot_ly(hotdog_winners_df, x = ~Year, y = ~Dogs_eaten, type = 'bar',
        marker = list(color = fill_colors, hoverinfo = 'none'))

fig <- fig %>%
    layout(
        title = "Bar Chart - R \nHotdog Eating Contest \nWinning Number of Hotdogs Eaten",
        xaxis = list(showgrid = FALSE,
                    title = ""),
        yaxis = list(showgrid = FALSE,
                    title = "Hotdogs Eaten",
                    titlefont = list(size = 22)),
        margin = list(l = 5, r = 5, b = 10, t = 30, pad = 10)
    )

export(fig, file = "images/barchart-r.png")
```

Bar Chart - R
Hotdog Eating Contest
Winning Number of Hotdogs Eaten

2. Stacked Bar Chart

```r
names <-  obama_df$Issue

top_labels <- c('Approve', 'Disapprove', 'None')

fig <- plot_ly(obama_df, x = ~Approve, y = ~names, type = 'bar',
               orientation = 'h', marker = list(color = '#46b715',
                                               line = list(color = '#ffffff',
                                                           width = 1.5)))
fig <- fig %>% add_trace(x = ~Disapprove, marker = list(color = '#cc0000'))
fig <- fig %>% add_trace(x = ~None, marker = list(color = '#bcbcbc'))

fig <- fig %>%
    layout(xaxis = list(title = "",
```

```r
                   showgrid = FALSE,
                   showline = FALSE,
                   showticklabels = TRUE,
                   zeroline = FALSE,
                   domain = c(0.15, 1)),
       yaxis = list(title = "",
                   showgrid = FALSE,
                   showline = FALSE,
                   showticklabels = FALSE,
                   zeroline = FALSE,
                   categoryorder = 'category descending'),
       barmode = 'stack',
       showlegend = FALSE,
       title = "Stacked Bar Chart - R \nObama Approval Percentages per Issue",
       autosize = F,
       margin = list(l = 70, r = 5, b = 5, t = 120, pad = 10)
       )

# labeling the y-axis
fig <- fig %>%
    add_annotations(xref = 'paper',
                   yref = names, x = 0.14,
                   y = names,
                   xanchor = 'right',
                   text = names,
                   font = list(family = 'Arial', size = 14,
                               color = '#000000'),
                   showarrow = FALSE, align = 'right')

# label top titles
fig <- fig %>%
    add_annotations(xref = 'x', yref = 'paper',
                   x = c(43 / 2, 45 + 42 / 2, 43 + 42 + 21 / 2),
                   y = 1.07,
                   text = top_labels,
                   font = list(family = 'Arial', size = 12,
                               color = '#000000'),
                   showarrow = FALSE)

export(fig, file = "images/stackedbarchart-r.png")
```
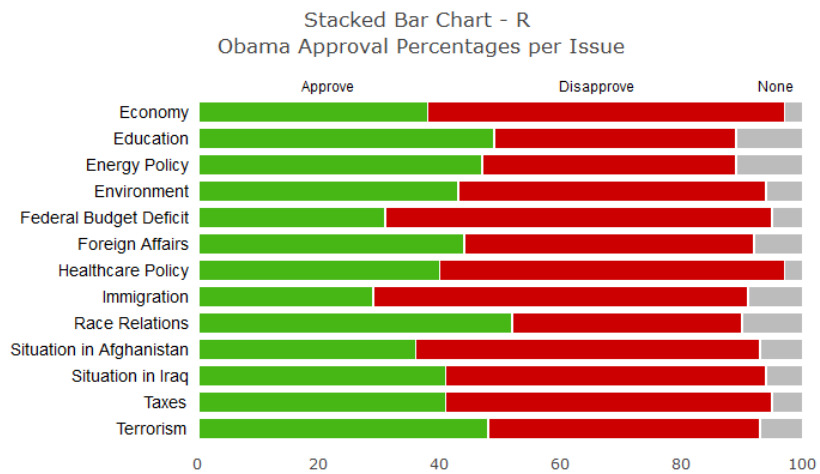
Stacked Bar Chart - R
Obama Approval Percentages per Issue

2. Pie Chart

```r
# Get the counts for each country
countries = dplyr::count(hotdog_winners_df, Country, sort = FALSE)

# plot pie chart
fig <- plot_ly(countries, labels = ~Country, values = ~n, type = 'pie',
               textinfo = 'percent', insidetextorientation = 'radial')

fig <- fig %>%
    layout(title = 'Pie Chart - R \n Percentage of Wins per Country 1980 - 2010',
        xaxis = list(showgrid = FALSE,
                  zeroline = FALSE,
                  showticklabels = FALSE),
        yaxis = list(showgrid = FALSE,
```
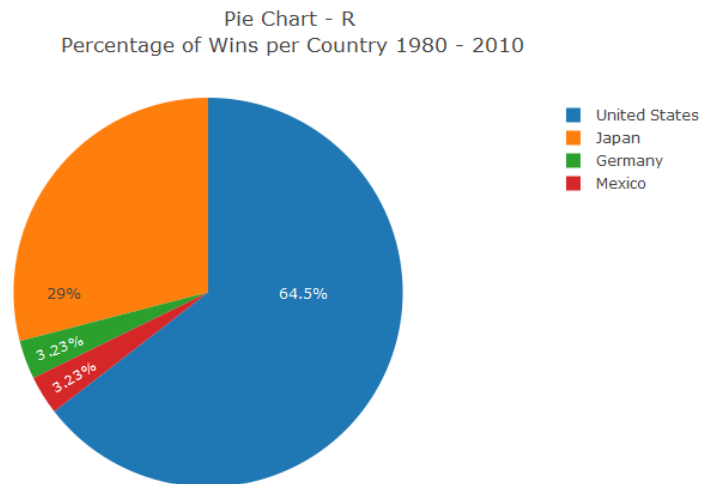
```
                zeroline = FALSE,
                showticklabels = FALSE),
        autosize = F,
        margin = list(l = 5, r = 5, b = 5, t = 120, pad = 10)
    )

export(fig, "images/piechart-r.png")
```


Pie Chart - R
Percentage of Wins per Country 1980 - 2010

4. Donut Chart

```
# Get the counts for each country
countries = dplyr::count(hotdog_winners_df, Country, sort = FALSE)

# plot pie chart
```

```r
fig <- plot_ly(countries, labels = ~Country, values = ~n)

fig <- fig %>%
    add_pie(hole = 0.6)

fig <- fig %>%
    layout(title = 'Donut Chart - R \n Percentage of Wins per Country 1980 - 2010',
        xaxis = list(showgrid = FALSE,
                     zeroline = FALSE,
                     showticklabels = FALSE),
        yaxis = list(showgrid = FALSE,
                     zeroline = FALSE,
                     showticklabels = FALSE),
        autosize = F,
        margin = list(l = 5, r = 5, b = 5, t = 120, pad = 10)
    )

export(fig, "images/donutchart-r.png")
```

Donut Chart - R
Percentage of Wins per Country 1980 - 2010

- United States
- Japan
- Germany
- Mexico

29%

64.5%

3.23%

3.23%