Gourav Verma

Week 5-6

Visualizing Proportions using R

In [22]:

```
# Import important libraries
library('magrittr')
```

In [23]:

```
unemp <- read.csv('unemployement-rate-1948-2010.csv')
expd <- read.delim('expenditures.txt')
head(unemp)
head(expd)
```

A data.frame: 6 × 4

| | Series.id | Year | Period | Value |
|---|---|---|---|---|
| | <fct> | <int> | <fct> | <dbl> |
| 1 | LNS14000000 | 1948 | M01 | 3.4 |
| 2 | LNS14000000 | 1948 | M02 | 3.8 |
| 3 | LNS14000000 | 1948 | M03 | 4.0 |
| 4 | LNS14000000 | 1948 | M04 | 3.9 |
| 5 | LNS14000000 | 1948 | M05 | 3.5 |
| 6 | LNS14000000 | 1948 | M06 | 3.6 |

A data.frame: 6 × 4

| | year | category | expenditure | sex |
|---|---|---|---|---|
| | <int> | <fct> | <int> | <int> |
| 1 | 2008 | Food | 6443 | 1 |
| 2 | 2008 | Alcoholic Beverages | 444 | 1 |
| 3 | 2008 | Housing | 17109 | 1 |
| 4 | 2008 | Apparel | 1801 | 1 |
| 5 | 2008 | Transportation | 8604 | 1 |
| 6 | 2008 | Healthcare | 2976 | 1 |

# Tree Map

In [24]:

```
treemap::treemap(expd,index = c('category'),
                 vSize = 'expenditure',
                 title = 'Expenditure by Category',
                 palette = 'RdYlGn')
```



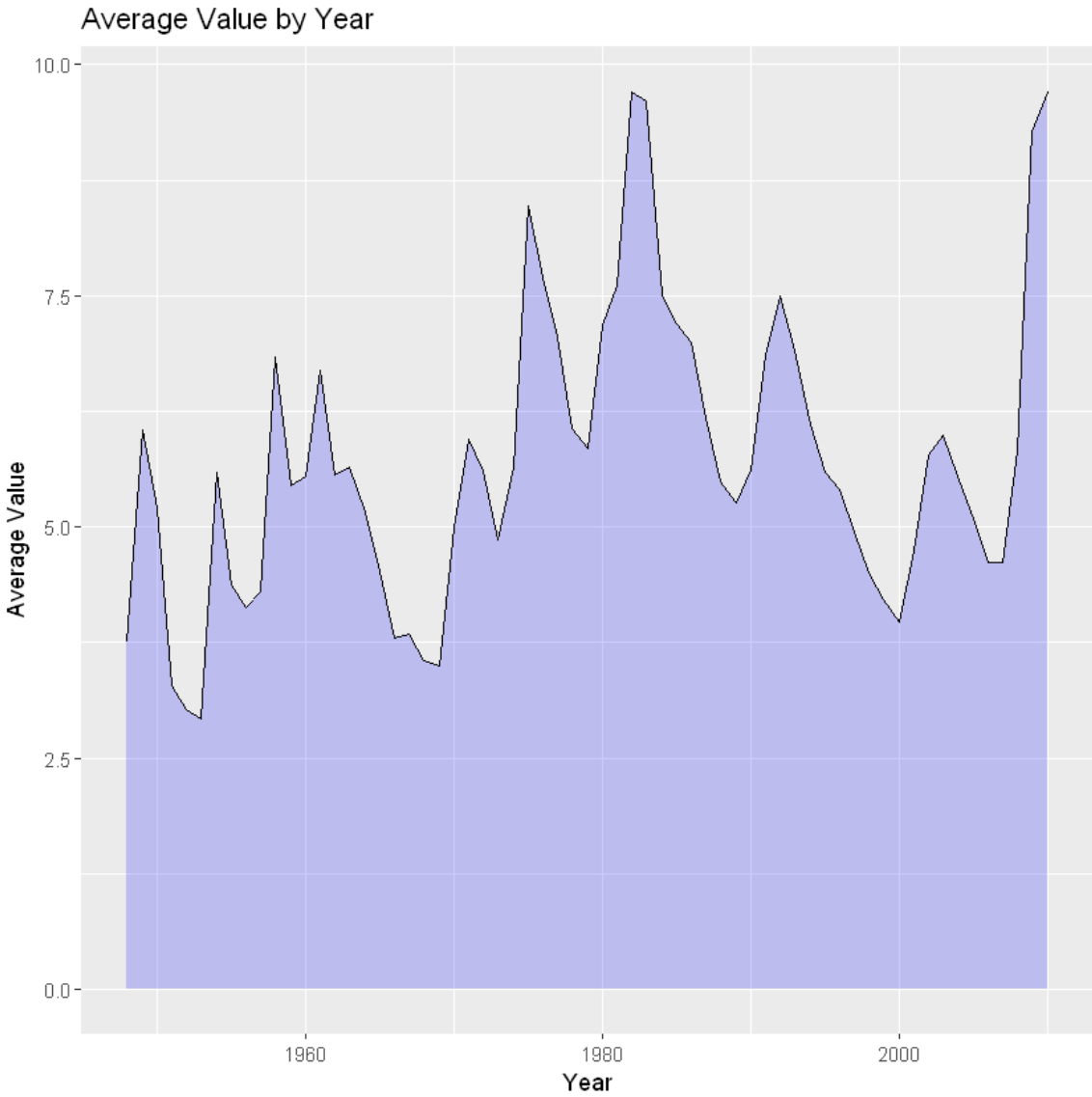Expenditure by Category
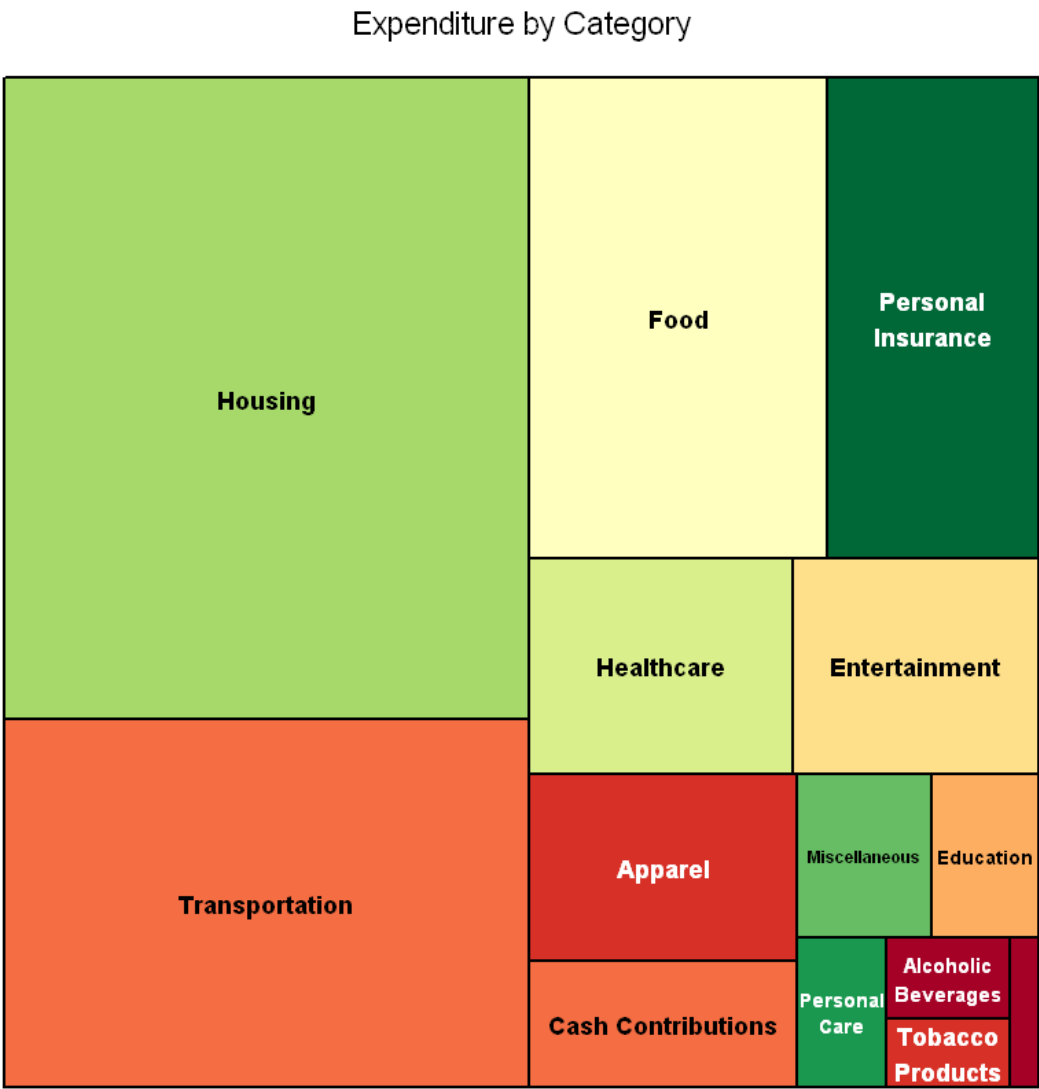
## Area Chart

In [25]:

```
avg_unemp = unemp %>%
    dplyr::group_by(Year) %>%
    dplyr::summarize('Average Value' = mean(Value))

head(avg_unemp)
```

A tibble: 6 × 2

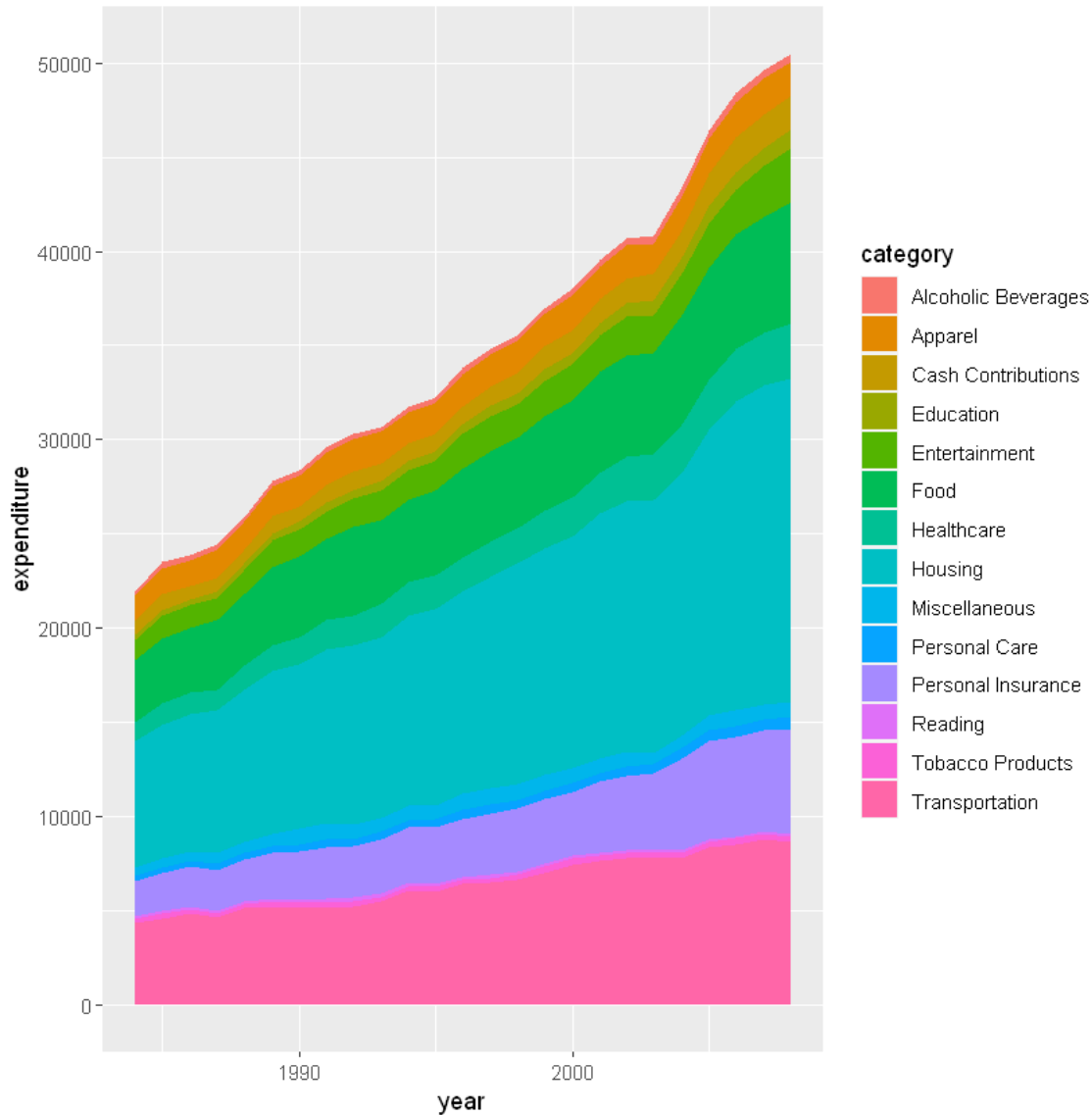| Year | Average Value |
|------|---------------|
| <int> | <dbl> |
| 1948 | 3.750000 |
| 1949 | 6.050000 |
| 1950 | 5.208333 |
| 1951 | 3.283333 |
| 1952 | 3.025000 |
| 1953 | 2.925000 |

In [26]:

```
ggplot2::ggplot(avg_unemp, ggplot2::aes(x=Year , y=`Average Value`)) +
ggplot2::geom_area( fill='blue', alpha=.2) +
ggplot2::geom_line() +
ggplot2::ggtitle('Average Value by Year')
```

## Average Value by Year

# Stacked Area Chart

In [27]:

```
ggplot2::ggplot(expd, ggplot2::aes(x=year, y=expenditure, fill=category)) +
  ggplot2::geom_area()
```



In [ ]: