

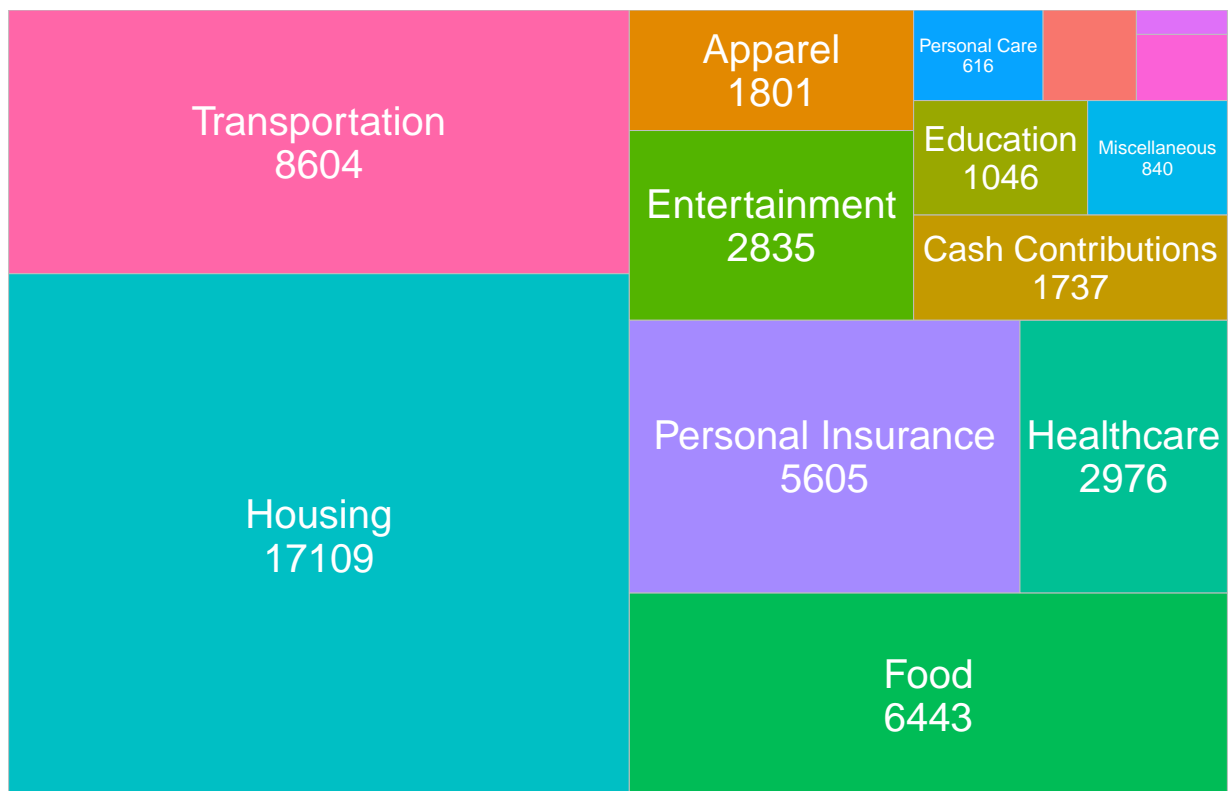
2.2 Assignment

Alexa Wittlieff

July 3, 2022

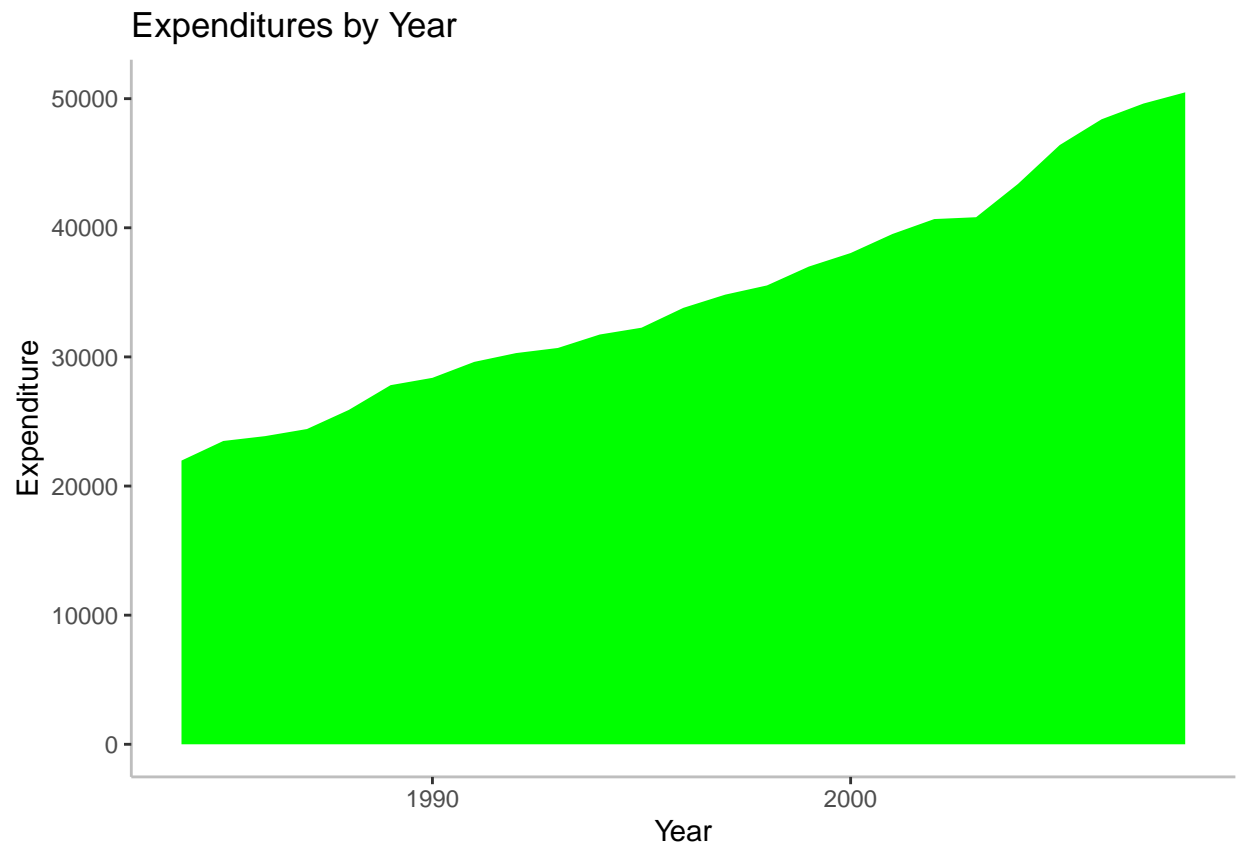
```
ggplot(trim_df, aes(area=expenditure, fill = category, label = paste(category, expenditure, sep = "\n")) +  
  geom_treemap() + geom_treemap_text(colour = "white",  
    place = "centre",  
    size = 15) +  
  theme(legend.position="none")+  
  ggtitle("2008 Expenditures by Category")
```

2008 Expenditures by Category

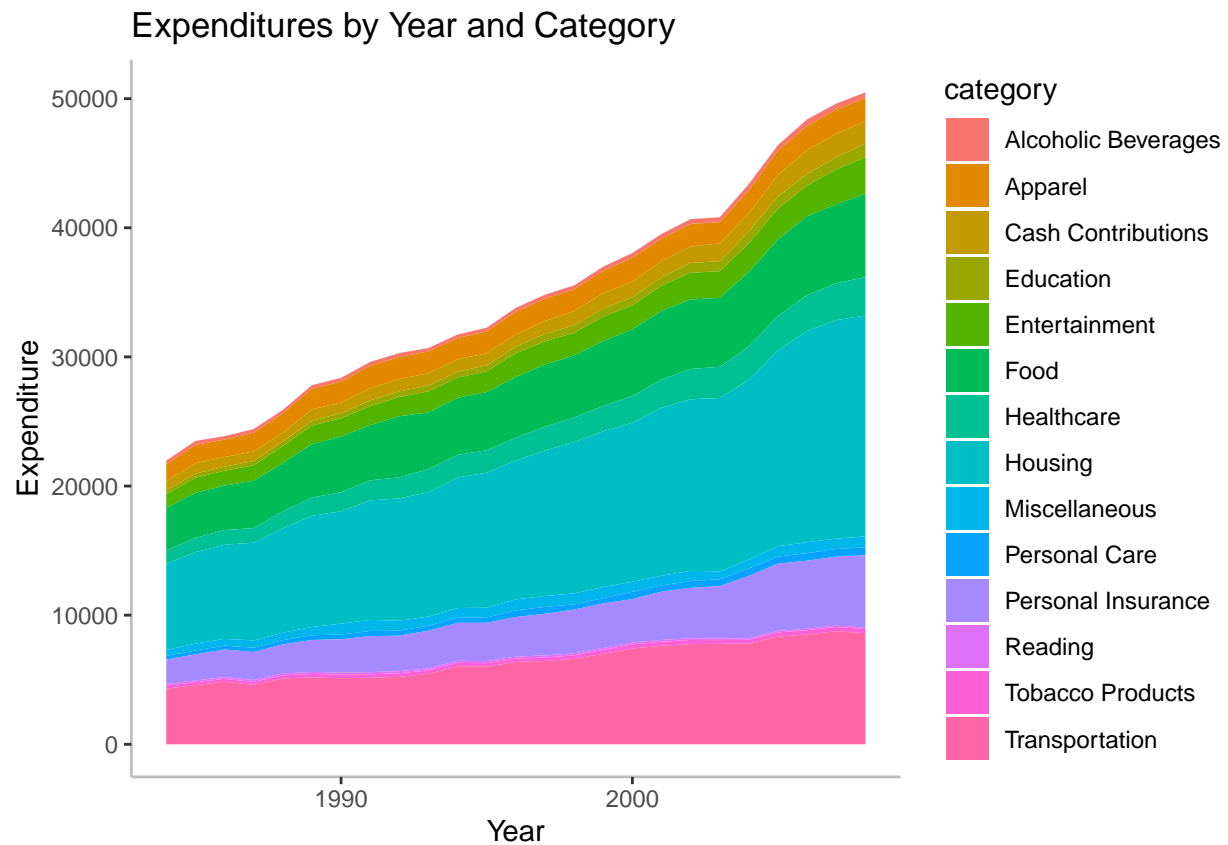


```
groupyr_df <- spend_df %>% group_by(year) %>% summarise(total_expenditure = sum(expenditure))
```

```
ggplot(groupyr_df, aes(x=year, y=total_expenditure)) + geom_area(fill='green') +  
  ggtitle("Expenditures by Year") + theme_bw() + theme(panel.border = element_blank(), panel.grid.major =  
  panel.grid.minor = element_blank(), axis.line = element_line(colour = "grey")) + xlab("Year") + ylab("E
```



```
ggplot(spend_df, aes(x=year, y=expenditure, fill=category)) + geom_area() + xlab("Year") + ylab("Expenditure") +  
  panel.grid.minor = element_blank(), axis.line = element_line(colour = "grey")) +  
  ggtitle("Expenditures by Year and Category")
```



```
ggplot(groupyr_df, aes(x=year, y=total_expenditure)) + geom_step(color="green") + xlab("Year") + ylab("Expenditure") +
  panel.grid.minor = element_blank(), axis.line = element_line(colour = "grey")) +
  ggtitle("Expenditures by Year")
```

