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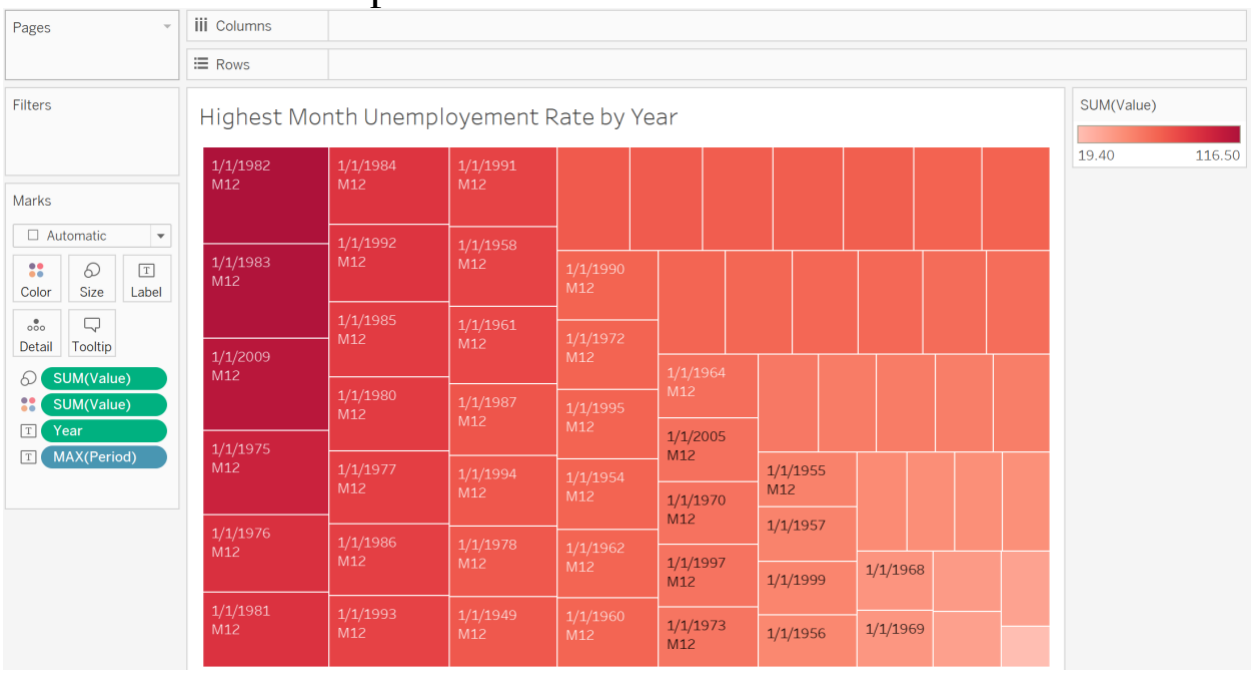
DSC640-T301 2227-1

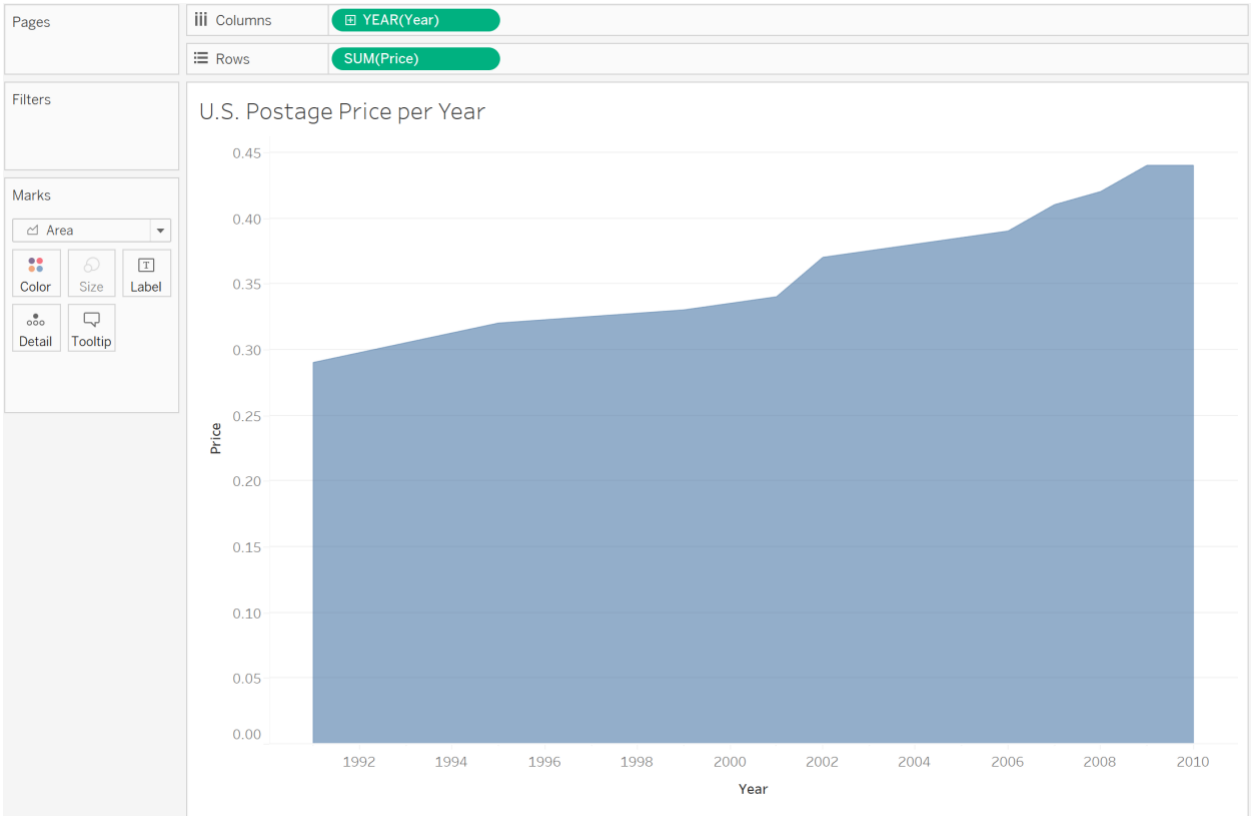
2.2 Exercise Charts

Tableau Charts

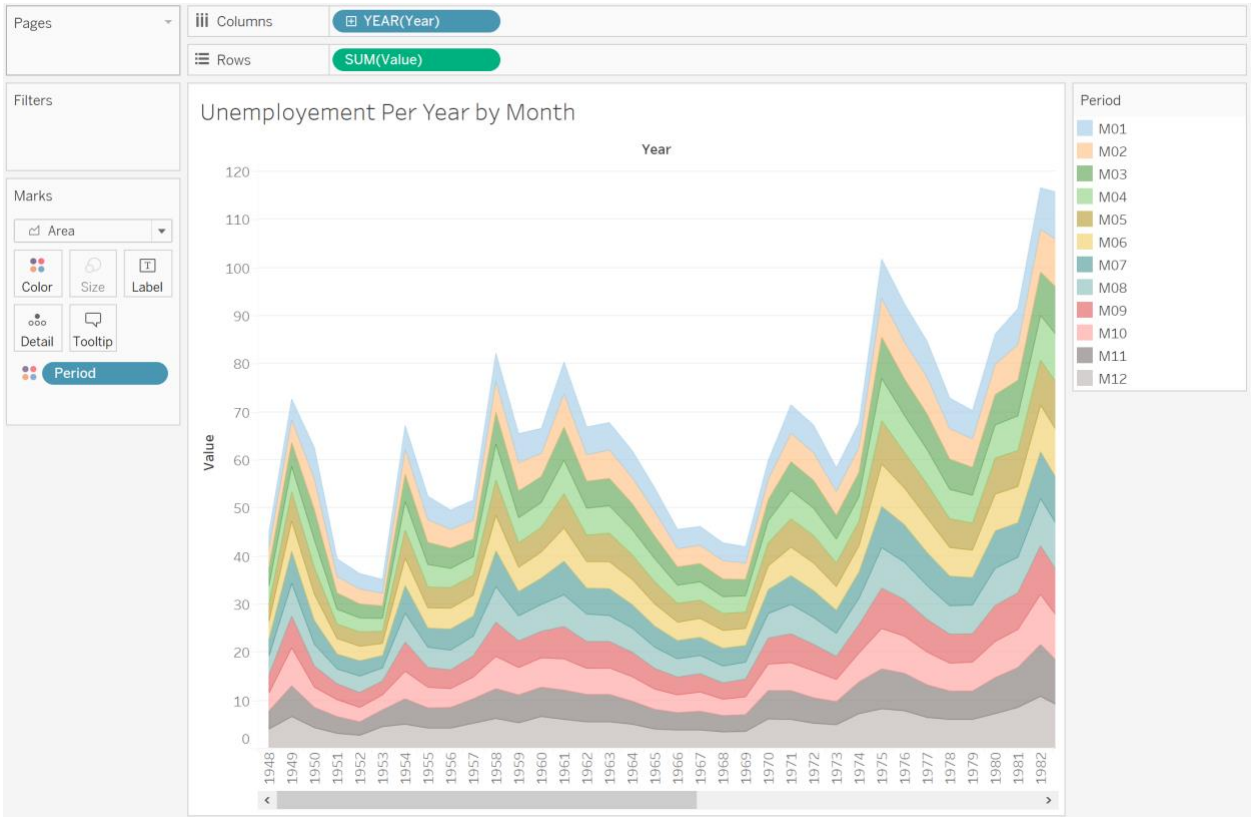
- Tableau – Tree Map



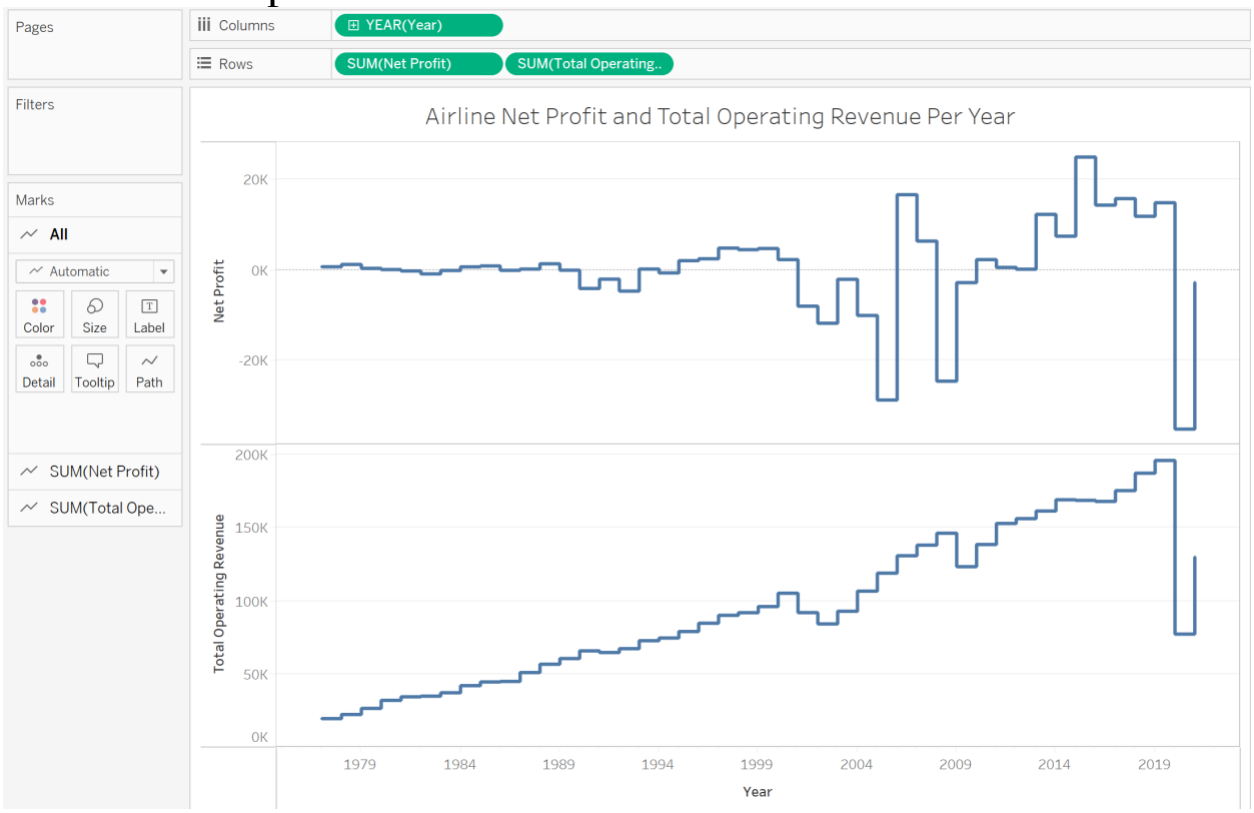
- Tableau - Area Chart



- Tableau – Stacked Area Chart



- Tableau – Step Chart

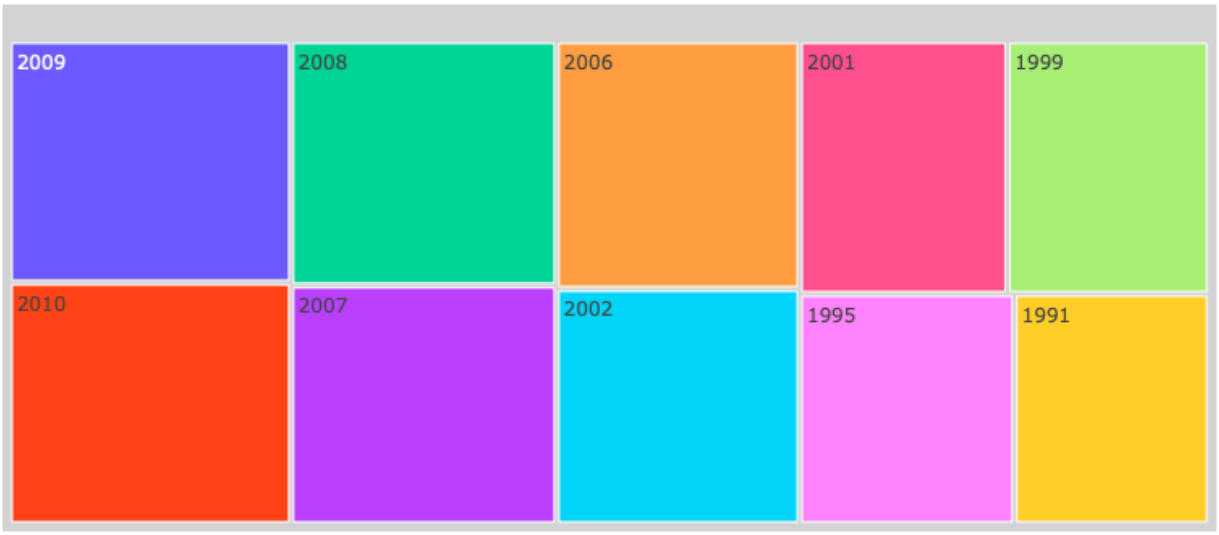


Python Charts

- Python – Tree Map

Python - Tree Map

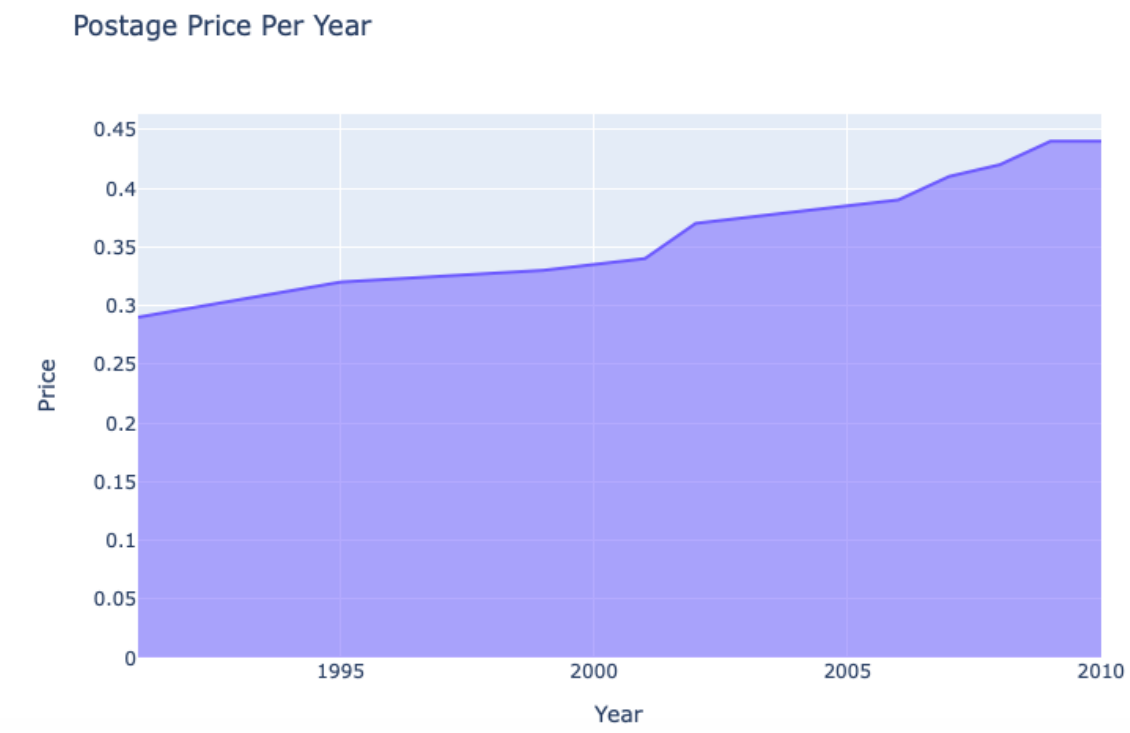
```
# Import plotly-express and create a treemap
import plotly.express as px
TreeMap = px.treemap(us_postage, path=['Year'],values='Price', width=800, height=400)
TreeMap.update_traces(root_color="lightgrey")
TreeMap.update_layout(margin = dict(t=50, l=25, r=25, b=25))
TreeMap.show()
```



- Python - Area Chart

Python - Area Chart

```
#create an Area chart for the us postage price
postage_Area = px.area(us_postage, x ='Year', y = 'Price', title = 'Postage Price Per Year')
postage_Area.show()
```

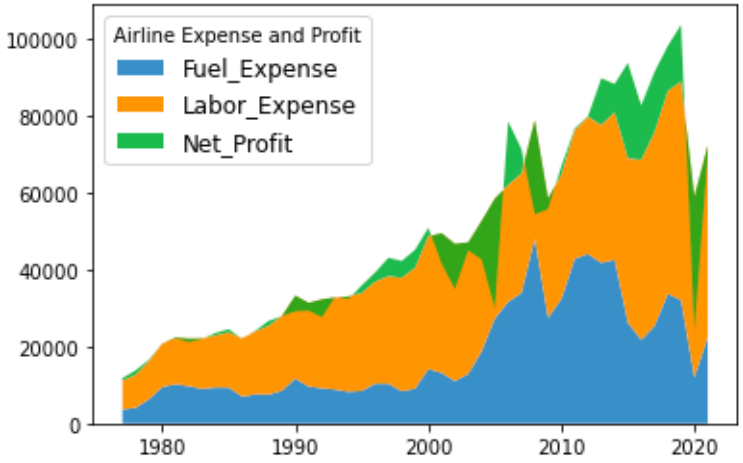


- Python – Stacked Area Chart

Python - Stacked Area Chart

```
# Create a Stacked Area chart for the us Airline expense and net profit.
# I decided to use my own data source because I had multiple variables
# to choose from to stack
plt.stackplot(Airline_data.Year,
              [Airline_data['Fuel_Expense'], Airline_data['Labor_Expense'],
               Airline_data['Net_Profit']],
              labels=['Fuel_Expense', 'Labor_Expense', 'Net_Profit'],
              alpha=0.8)

plt.legend(loc=2, fontsize='large', title="Airline Expense and Profit")
plt.show()
```

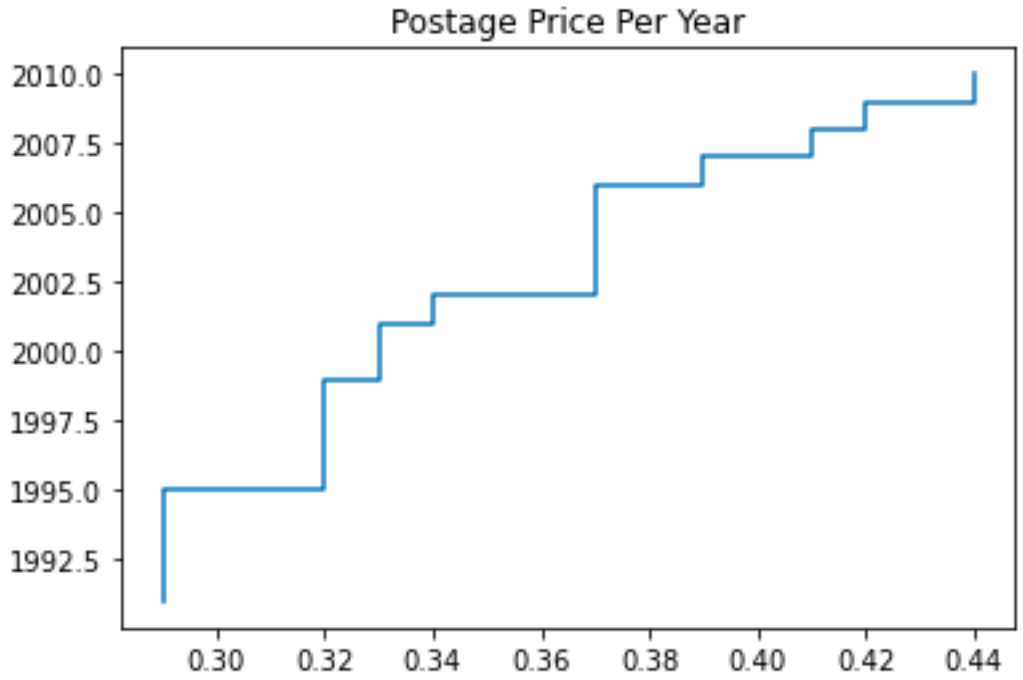


- Python – Step Chart

Python - Step Chart

```
# Next I will create a step chart using Plt
x = us_postage.Price
y = us_postage.Year

plt.step(x, y)
plt.title("Postage Price Per Year")
plt.show()
```

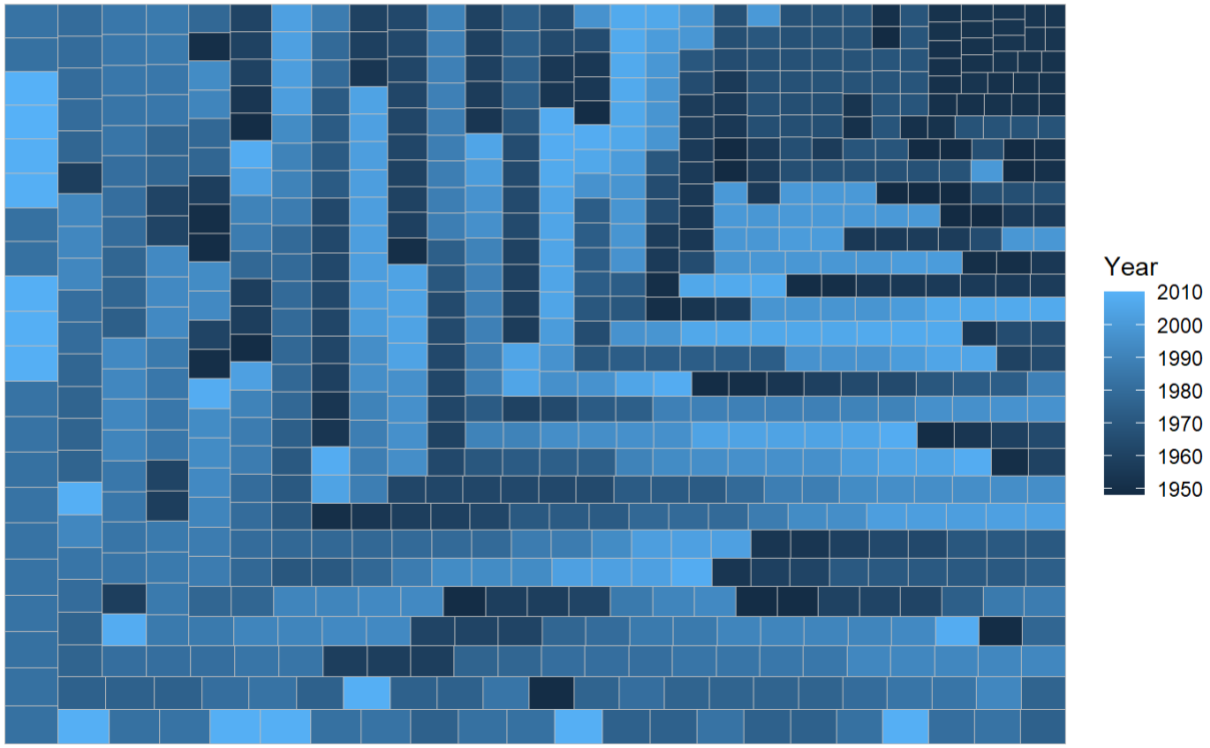


R Studios Charts

- R Studios – Tree Map

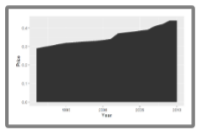
```r
```{r Tree Map, include=TRUE}
library(treemapify)
library(ggplot2)

ggplot(unemployement_rate, aes(area = Value, fill = Year)) +
  geom_treemap()
```
```

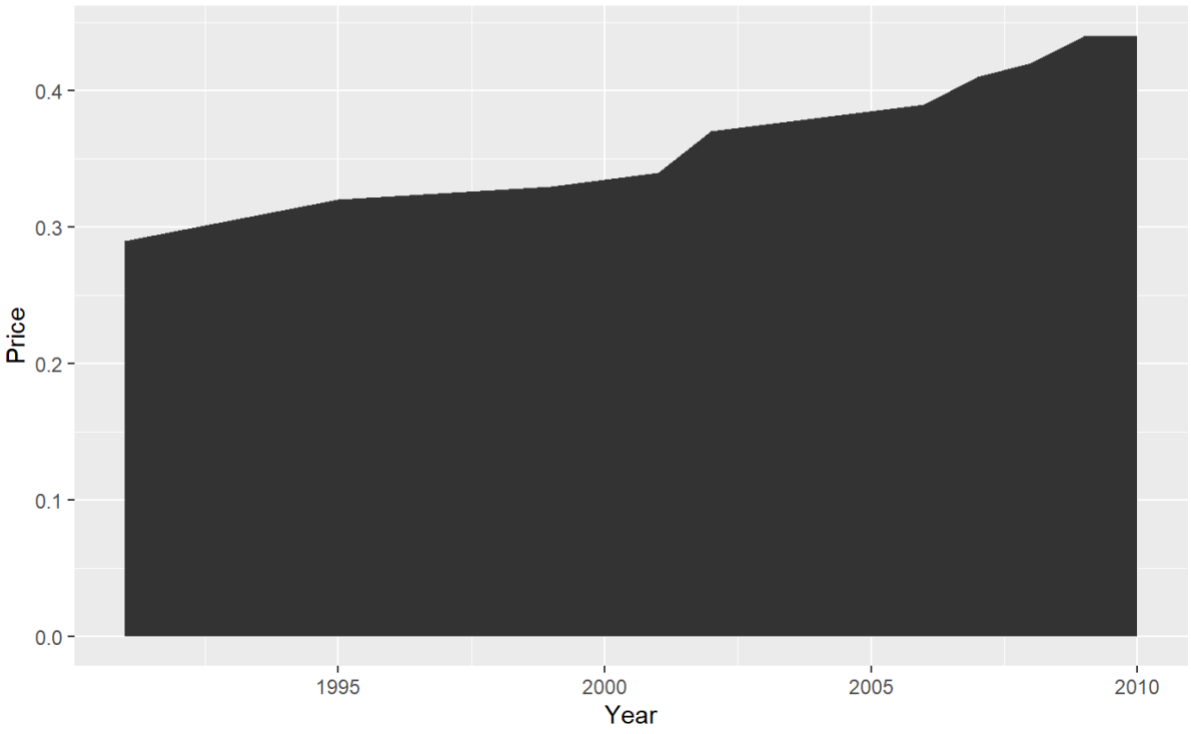


- R Studios - Area Chart

```r
# area chart
library(dplyr)
ggplot(us_postage, aes(x=Year, y=Price)) +
    geom_area()
```

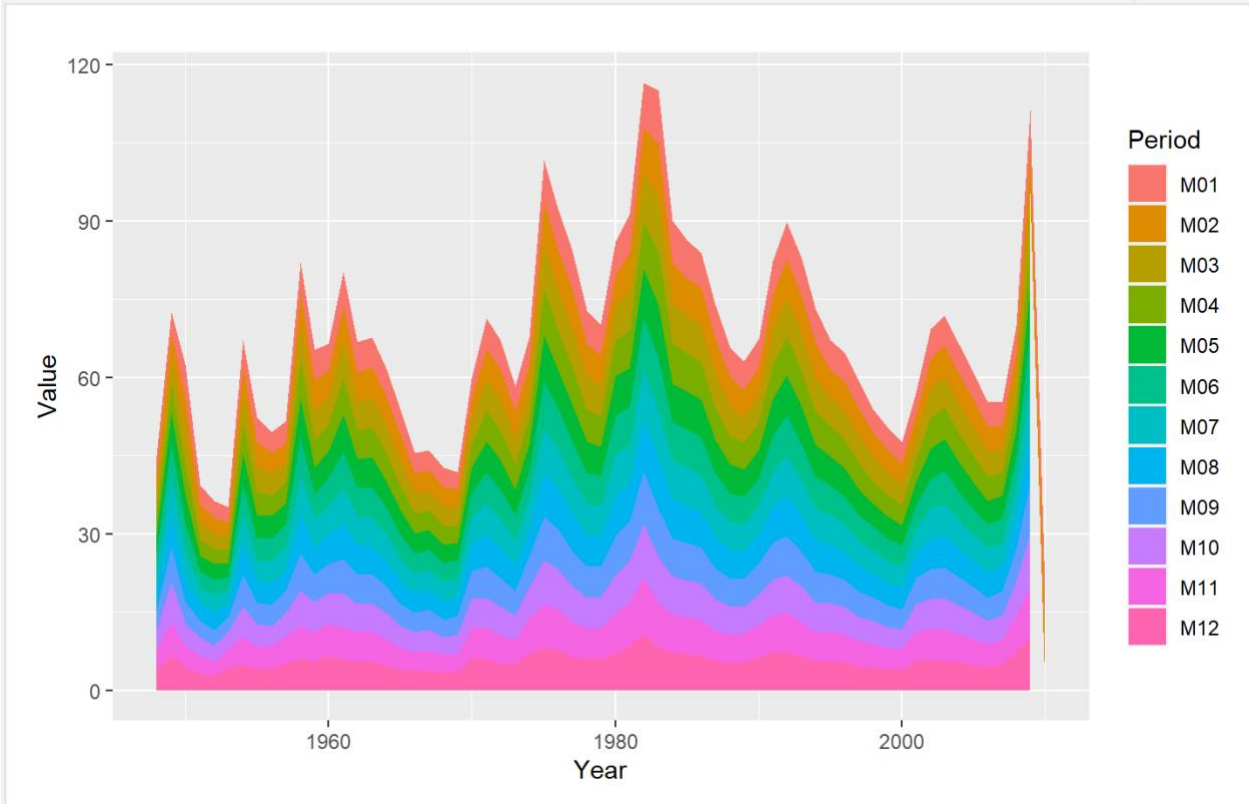


R Console



- R Studios – Stacked Area Chart

```r
```{r Stacked Area Chart, include=TRUE}
# stacked area chart
library(dplyr)
ggplot(unemployement_rate, aes(x=Year, y=Value, fill=Period)) +
    geom_area()
```
```



- R Studios – Step Chart

```r
```{r Step Chart, include=TRUE}
# I will create a stepped line chart using qplot
qplot(Year, Price, data = us_postage, geom = "step")
```
```